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***Agent Orange* and the Government Contract Defense: Are Military Manufacturers Immune from Products Liability?**

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COMMENTS

***Agent Orange* and the Government Contract Defense: Are Military Manufacturers Immune from Products Liability?**

Courts are unwilling to impose products liability on government contractors, particularly during wartime. If a contractor nonnegligently performs a government contract according to specifications provided by the government, then it will be absolved from liability to third parties. This Comment discusses the elements of, and prudential justifications for, this "government contract defense." After examining the relationship between the government contract defense and the doctrine of sovereign immunity, the Comment concludes that the defense is necessary to preserve the government's discretionary authority over military procurement.

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I. INTRODUCTION

In May 1975, President Gerald Ford declared the official end of the American involvement in the Vietnam War.¹ Yet seven years

1. Proclamation No. 4373, 40 Fed. Reg. 20,257 (1975); see also *The End of an Era*, NEWSWEEK, May 5, 1975, at 20, 20 ("[T]he war in Vietnam . . . 'is finished as far as America is concerned.'").

later, the United States remains plagued by the tragic memory of the Vietnam experience. The sting of war is still felt by those who served in Vietnam; many carry both physical and psychological scars from their battlefield encounters.² With each passing year, more veterans fall victim to a war that has ended for America, but rages on anew in the minds and bodies of its survivors. The source of the problem is not the enemy, but ourselves; a chemical used by the United States during the war, rather than Viet Cong mortar fire, is causing the injuries.

The chemical culprit is a herbicide called Agent Orange.³ In January 1962, United States military forces began spraying Agent Orange on the forests of Vietnam to eliminate the enemy's shelter and food supply.⁴ Eight years later, the government terminated the defoliation program in response to growing fears that the herbicide was toxic.⁵ By that time, the spraying had exposed millions of American servicemen to Agent Orange.⁶ Unfortunately, the medical and scientific admonitions proved prophetic, as subsequent research has demonstrated that Agent Orange is a lethal toxin.⁷

2. See Comment, *Agent Orange as a Problem of Law and Policy*, 77 NW. U.L. REV. 48, 48 n.5 (1982).

3. Herbicides are chemicals used to kill weeds and plants. L. CASARETT & J. DOULL, TOXICOLOGY 408, 437 (1975). Herbicides can be manufactured in different concentrations and with a varying number of chlorophenoxy groups, the active ingredients in Agent Orange. *Id.* at 437-38. Agent Orange is considered highly toxic due to the presence of 2, 3, 7, 8-tetrachloro-dibenzo-p-dioxin, commonly known as dioxin. *In re "Agent Orange" Prod. Liab. Litig. (Agent Orange III)*, 635 F.2d 987, 989 (2d Cir. 1980), *cert. denied sub nom. Chapman v. Dow Chem. Co.*, 454 U.S. 1128 (1981). Although the history of the development and use of Agent Orange is beyond the scope of this Comment, an excellent review is available in Meyers, *Soldier of Orange: The Administrative, Diplomatic, Legislative and Litigatory Impact of Herbicide Agent Orange in South Vietnam*, 8 ENVTL. AFF. 159, 160-61 (1979), and Commentary, *Agent Orange: Government Responsibility for the Military Use of Phenoxy Herbicides*, 3 J. LEGAL MED. 137 (1982).

4. See *infra* note 171 and accompanying text.

5. See Meyers, *supra* note 3, at 164-69.

6. "Some [veterans] claim to have been directly sprayed with Agent Orange"; others believe that their exposure was due to "being transported through sprayed areas . . . or ingesting water or food contaminated with the herbicide; and still others claim exposure during the transportation and handling of Agent Orange or its containers." *In re "Agent Orange" Prod. Liab. Litig. (Agent Orange I)*, 506 F. Supp. 762, 776 (E.D.N.Y.), *rev'd*, 635 F.2d 987 (2d Cir. 1980), *cert. denied sub nom. Chapman v. Dow Chem. Co.*, 454 U.S. 1128 (1981). The number of servicemen exposed to the herbicide is estimated at 2.4 million. *Agent Orange III*, 635 F.2d 987, 989 (2d Cir. 1980), *cert. denied sub nom. Chapman v. Dow Chem. Co.*, 454 U.S. 1128 (1981); see Yannacone, Kavenagh & Searcy, *Agent Orange Litigation*, 1982 TRIAL 44 [hereinafter cited as Yannacone].

7. See Meyers, *supra* note 3, at 180-83. Agent Orange is now believed to be carcinogenic (i.e., causes cancer), teratogenic (i.e., interferes with normal fetal growth processes), mutagenic (i.e., causes a change in the sequence of base pairs in the chromosomal DNA molecule), fetotoxic (i.e., toxic to the fetus *in utero*), and the cause of numerous systemic disor-

Who is to blame for the calamitous consequences of the Agent Orange operation? At least one lawsuit, *In re "Agent Orange" Product Liability Litigation (Agent Orange I)*,⁸ seeks to blame the chemical companies who manufactured the herbicide. Among the grounds for the plaintiffs'⁹ suit against the chemical companies is products liability.¹⁰ The manufacturers rely on the government

ders. See Commentary, *supra* note 3, at 145-49.

8. 506 F. Supp. 762 (E.D.N.Y.), *rev'd*, 635 F.2d 987 (2d Cir. 1980), *cert. denied sub nom. Chapman v. Dow Chem. Co.*, 454 U.S. 1128 (1981). For purposes of clarity, this decision hereinafter will be referred to as "*Agent Orange I*"; the subsequent district court opinion, 534 F. Supp. 1046 (E.D.N.Y. 1982), will be referred to as "*Agent Orange II*"; and the court of appeals' decision, 635 F.2d 987 (2d Cir. 1980), will be referred to as "*Agent Orange III*."

Several periodicals have reported on the Agent Orange controversy. See, e.g., Davis, *Military Products Liability*, TRIAL, July 1977, at 48; Griffin, *Poisoned Patriotism*, 1982 STUDENT LAW. 23; Payne, *Beyond Vietnam, Beyond Politics, Beyond Causes . . .*, 6 BARRISTER 10 (1977); Toback, *A Case of Mistaken Liability: The Government Contractor's Liability for Injuries Incurred by Members of the Armed Forces*, 13 PUB. CONT. L.J. 74 (1982); Yannacone, *supra* note 6, at 45; Comment, *supra* note 2; Comment, *Agent Orange Products Liability Suits for Defective Design*, 48 U. CHI. L. REV. 1030 (1981); 7 AM. J.L. & MED. 46 (1981); 1981 CLEARINGHOUSE REV. 1256.

The Agent Orange controversy is but one of a number of current cases involving the potential liability of a government contractor for injuries caused by the manufacture of a product for the government. Other disputes center around the domestic use of herbicides, see cases cited in Nat'l L.J., July 26, 1982, at 1, col. 1, or asbestos, see cases cited in Oshinsky, *Insurance Coverage For Asbestos Tort Liability Litigation*, 5 J. PROD. LIAB. 69 (1982). In these cases, the government usually has specified the use of a material or the manufacture of a product that causes injury to the ultimate user. At the time they entered the contract, the government and the contractor often possessed little or no information indicating that the materials or finished product would be hazardous. For an account of the events leading to the recognition of asbestos as an occupational hazard, see *Borel v. Fibreboard Paper Prods. Corp.*, 493 F.2d 1076 (5th Cir. 1973), *cert. denied*, 419 U.S. 869 (1974); P. BRODEUR, *EXPENDABLE AMERICANS* (1974).

9. Plaintiffs include "Vietnam veterans, their spouses, their parents, and their children." *Agent Orange I*, 506 F. Supp. at 769.

10. Section 402A of the *Restatement (Second) of Torts* details the elements of products liability:

- (1) One who sells any product in a defective condition unreasonably dangerous to the user or consumer or to his property is subject to liability for physical harm thereby caused to the ultimate user or consumer, or to his property, if
 - (a) the seller is engaged in the business of selling such a product, and
 - (b) it is expected to and does reach the user or consumer without substantial change in the condition in which it is sold.
- (2) The rule stated in Subsection (1) applies although
 - (a) the seller has exercised all possible care in the preparation and sale of his product, and
 - (b) the user or consumer has not bought the product from or entered into any contractual relation with the seller.

RESTATEMENT (SECOND) OF TORTS § 402A (1965).

Strict products liability does not mean that the seller is an insurer for all harm resulting from the use of its product, but merely that the seller is liable to an injured user or con-

contract defense to refute the plaintiffs' claims; they contend that because the government controlled and dictated the design and manufacture of Agent Orange, it therefore either warranted the chemical's safety or immunized the manufacturers of Agent Orange from liability.¹¹ Although the United States District Court for the Eastern District of New York recognized that the contractors in *Agent Orange I* are protected by the government contract defense,¹² it refused to grant the chemical companies a summary judgment because too many material facts relevant to the companies' defense remain unresolved.¹³

sumer if its product is "unreasonably dangerous," however careful the seller was in producing it. See *Simien v. S.S. Kresge Co.*, 566 F.2d 551, 557 (5th Cir. 1978); *Stueve v. American Honda Motors Co.*, 457 F. Supp. 740, 753 (D. Kan. 1978); *Daly v. General Motors Corp.*, 20 Cal. 3d 725, 733, 575 P.2d 1162, 1166, 144 Cal. Rptr. 380, 384 (1978). An injured consumer or user may recover under products liability for defective design, *Ford v. Harnischfeger Corp.*, 365 F. Supp. 602, 606 (E.D. Pa. 1973); defective manufacture, *Neofes v. Robertshaw Controls Co.*, 409 F. Supp. 1376, 1379-80 (S.D. Ind. 1976) (manufacturer of component part found liable under strict liability); or inadequate warning of the product's danger, *LaBelle v. McCauley Indus. Corp.*, 649 F.2d 46, 55 (1st Cir. 1981); *Reyes v. Wyeth Laboratories*, 498 F.2d 1264, 1273-78 (5th Cir. 1974).

Other grounds for the plaintiffs' suit in *Agent Orange* include negligence, breach of warranty, and nuisance. *Agent Orange I*, 506 F. Supp. at 769.

11. *Agent Orange I*, 506 F. Supp. at 792-97.

12. *Id.* at 792-95.

13. *Id.* at 795-96. The history of the *Agent Orange* litigation is complex. For the events precipitating the first lawsuit, see Yannacone, *supra* note 6. The original plaintiffs commenced action in the United States District Courts for the Northern District of Illinois and for the Southern and Eastern Districts of New York. *Agent Orange III*, 635 F.2d at 988. The Judicial Panel on Multidistrict Litigation ordered all *Agent Orange* cases consolidated and transferred to the Eastern District of New York. *In re "Agent Orange" Prod. Liab. Litig.*, No. 381 (J.P.M.D.L. Jan. 29, 1980). All subsequent plaintiffs filed their claims in this court. The district court initially dismissed the plaintiffs' complaint, including "a claim for injunctive relief against further manufacture of certain herbicides." 635 F.2d at 989 & n.2. The plaintiffs then filed an amended complaint "asserting causes of action under the federal common law." *Id.* at 989. Before the court could consider the defendants' motion to dismiss the amended complaint for lack of subject matter jurisdiction, the "plaintiffs proffered a third amended complaint." *Id.* The district court entertained the defendants' previous motion to dismiss, but denied the request.

On appeal, the United States Court of Appeals for the Second Circuit reversed, holding that the plaintiffs lacked federal question jurisdiction because a federal common-law rule of products liability did not apply to this suit. The court of appeals found the plaintiffs' federal common-law claims deficient on three grounds: 1) there exists no substantial federal interest in the outcome of the litigation; 2) the application of state law would not deleteriously affect federal interests; and 3) the application of federal common law would adversely affect state interests. *Id.* at 993-95; see 12 CUM. L. REV. 183 (1981).

In the aftermath of the Second Circuit's opinion, the district court has (1) clarified the validity and relevancy of the government contract defense, *Agent Orange I*, 506 F. Supp. at 792-95; (2) ruled that under the *Feres* doctrine, *infra* note 17, neither plaintiffs nor defendants may sue, implead, or seek indemnification from the United States for injuries caused by Agent Orange, 506 F. Supp. at 774-81; and (3) found that the plaintiffs had satisfied the

The government contract defense is based on "considerations of fairness and public policy".¹⁴ First, the contractor is deemed to be merely an extension of the government; and second, it is unfair and inequitable to hold a contractor liable for the tortious conduct of the government.¹⁵ The focal point of the government contract defense is the government's discretionary decision to order the design, manufacture, or use of the product in question.

Under the government contract defense, a government contractor is liable for negligently performing his job. But the contractor is not liable, even under products liability, if he follows the dictates of the contract and there are exigent circumstances justifying the suspension of liability. Courts are unwilling to impose products liability on a contractor who fills a government wartime order because it would either impede contractor participation in the war effort or impair government discretionary authority over military procurement.¹⁶ The realities of this defense are particularly disturbing in a case such as *Agent Orange*, in which the denial of products liability relief probably spells the end of any legal action against the chemical companies for herbicide-related injuries.¹⁷

requirements of FED. R. Civ. P. 23(b)(3) for a class action, 506 F. Supp. at 787-91. Due to the complexity of the case, the district court has decided to have separate trials for some of the issues, including the government contract defense, liability under "negligence, product liability, and general causation," and the individual damages claims. *Id.* at 785-86.

14. *Agent Orange I*, 506 F. Supp. at 793.

15. Toback, *supra* note 8, at 92.

16. See *infra* notes 65-175 and accompanying text.

17. Hundreds of thousands of veterans already are precluded from suing the chemical companies in state courts because the relevant statutes of limitations have lapsed. See Comment, *supra* note 2, at 58 n.67. The plaintiffs' plight becomes even more troubling because they have no legal recourse against the United States. *Agent Orange I*, 506 F. Supp. at 781. This result is dictated by section 2680(j) of the Federal Tort Claims Act and the *Feres* doctrine, which prevent members of the armed forces from suing the United States for injuries suffered incident to, or arising out of, military service. See *Feres v. United States*, 340 U.S. 135, 146 (1950); Federal Tort Claims Act, 28 U.S.C. §§ 1291, 1346, 1402, 1504, 2110, 2401, 2404, 2411-2412, 2671-2680 (1976 & Supp. IV 1980). The *Feres* Court cited several reasons for the doctrine, some of which remain persuasive today. First, the "distinctively federal" nature of the relationship between soldiers and the government means that military personnel should not be subject to variations in state law when seeking relief. 340 U.S. at 143. Second, claims against the government are unnecessary because there already exists a comprehensive system for compensating military personnel under the Veterans' Benefits Act, 38 U.S.C. § 355 (1976). 340 U.S. at 145. *But cf.* *United States v. Brown*, 348 U.S. 110, 113 (1954) (availability of veterans' benefits does not preclude suit against government). Third, suits against the government are barred because of the need for military discipline, which is fostered by preventing a soldier from questioning the legitimacy of an order. See, e.g., *Stencel Aero Eng'g Corp. v. United States*, 431 U.S. 666, 673 (1977); *United States v. Brown*, 348 U.S. at 112. The courts have used the *Feres* doctrine to prevent a government

This Comment examines the basis for suspending products liability during wartime and posits the relevant legal standard to be applied by a court in lawsuits against government contractors. Part II explores the elements of the government contract defense. Part III is a prudential and philosophical analysis of the need and rationale for the government contract defense during wartime. Whether the defendant chemical companies should have produced Agent Orange is beyond the scope of this Comment.

II. ELEMENTS OF THE GOVERNMENT CONTRACT DEFENSE

In a proper case, the government contract defense provides a contractor with a "complete defense" to claims sounding in negligence, warranty, or products liability.¹⁸ The government contractor

contractor from impleading the United States as a third-party defendant liable for indemnification or contribution. See, e.g., *Agent Orange I*, 506 F. Supp. at 781 (relying on *Stencel Aero Eng'g Corp. v. United States*, 431 U.S. 666 (1977)). For an excellent explanation of the "incident to service" limitation of the *Feres* doctrine, see *Parker v. United States*, 611 F.2d 1007 (5th Cir. 1980).

Despite this gloomy outlook, the plaintiffs can receive some compensation for their injuries if Congress passes a special bill to provide the aggrieved parties with relief in excess of current military benefits. See Meyers, *supra* note 3, at 185-86; *infra* note 103; cf. Appleson, *A-Test Vets, Families Fight Cancer and U.S. Government*, 68 A.B.A. J. 26, 29 (1982) (veterans exposed to nuclear radiation during military testing seek congressional aid).

18. *Casabianca v. Casabianca*, 104 Misc. 2d 348, 350, 428 N.Y.S.2d 400, 402 (Sup. Ct. 1980) (warranty), cited with approval in *Agent Orange I*, 506 F. Supp. at 794; see, e.g., *Hunt v. Blasius*, 55 Ill. App. 3d 14, 370 N.E.2d 617 (1977) (warranty), *aff'd*, 74 Ill. 2d 203, 384 N.E.2d 368 (1978); *Sanner v. Ford Motor Co.*, 144 N.J. Super. 1, 364 A.2d 43 (Law Div. 1976) (negligence and strict liability), *aff'd*, 154 N.J. Super. 407, 381 A.2d 805 (App. Div. 1977), *certification denied*, 75 N.J. 616, 384 A.2d 846 (1978).

This defense does not include assumption of risk. Assumption of risk may be express or implied. Express assumption of risk requires that the plaintiff expressly agree in advance "to relieve the defendant of an obligation of conduct toward him, and to take his chances of injury from a known risk arising from what the defendant is to do or leave undone." W. PROSSER, *LAW OF TORTS* § 68, at 440 (4th ed. 1971). The plaintiff's consent must be the result of free and open bargaining between the parties, and the agreement must be consistent with public policy. *Id.* at 444. Implied assumption of risk requires that "the plaintiff voluntarily [enter] into some relation with the defendant, with knowledge that the defendant will not protect him against the risk." *Id.* at 440.

Conceivably, a soldier who enlists in the armed services is assuming a risk of harm; the danger is self-evident. The assumption of risk doctrine requires, however, that the injured party appreciate the risk presented by the specific situation or product. For example, in *Montgomery v. Goodyear Tire & Rubber Co.*, 231 F. Supp. 447 (S.D.N.Y. 1964), the manufacturer of a defective airship argued that a serviceman who volunteered for flight duty not required of other Navy personnel, and who received higher compensation to perform the work, had assumed the risk of his subsequent injury. The facts, however, did not demonstrate that the injured serviceman knew of the "advanced design" and "limited safety" features of his airship. *Id.* at 451. Therefore, the court rejected the manufacturer's assumption of risk argument because, as a matter of law, the serviceman neither knew nor appreciated the risks of the airship. *Id.* In the context of this Comment, a soldier, to have assumed the

must raise this affirmative defense and prove each of its elements.¹⁹ Whether the contractor is absolved from liability, however, will depend on how the court characterizes the contract's specifications,²⁰ and the amount of discretionary authority the contract grants the contractor.²¹

Agent Orange II delineated three elements of the government contract defense: (1) government-established contract specifications; (2) contractor compliance in all material respects with the specifications; and (3) government knowledge at least equal to the contractor's knowledge about the hazards of the finished product.²² The following section of this Comment explains each of these elements and how they work to protect government contractors from liability to third parties.

A. Government-Established Specifications

The government contract defense requires at the outset that the government establish the specifications for the procured prod-

risk of exposure to Agent Orange, must have had knowledge of its dangers, and have expressly or impliedly agreed to encounter them.

19. *Agent Orange II*, 534 F. Supp. at 1055-56.

20. See *infra* notes 27-34 and accompanying text.

21. A relationship exists between the extent of a contractor's discretion and the availability of the government contract defense. Under the defense, the government contractor is required to follow closely the contract's specifications. A contractor who elects to substitute materials or change a procedure assumes the responsibility for the consequences of his act. *Austin Co. v. United States*, 314 F.2d 518 (Ct. Cl.), *cert. denied*, 375 U.S. 830 (1963); see *Cameo Bronze, Inc.*, 73-2 B.C.A. (CCH) ¶ 10,135, at 47,653 (1973); *Polyphase Contracting Corp.*, 68-1 B.C.A. (CCH) ¶ 6759, at 31,259 (1968); *Aerodex, Inc.*, 1962 B.C.A. (CCH) ¶ 3492, at 17,822, *rev'd on other grounds*, 417 F.2d 1361 (Ct. Cl. 1969); see also *infra* notes 30-31 and accompanying text.

The scope of the government contract defense becomes "more restricted" as the latitude afforded the contractor expands. *Agent Orange II*, 534 F. Supp. at 1056. This result is not surprising for two reasons. First, the government impliedly warrants that its specifications, not the contractor's rendition, are adequate and, if followed, will produce a satisfactory finished product. *United States v. Spearin*, 248 U.S. 132, 137 (1918); *J.L. Simmons Co. v. United States*, 412 F.2d 1360, 1363 & n.4, 1382 (Ct. Cl. 1969). For a discussion of the implied warranty attached to the government's specifications, see *infra* notes 25-34 and accompanying text. Second, sovereign immunity "extends" to the contractor if he is doing "government work under government direction." *Converse v. Portsmouth Cotton Oil Ref. Corp.*, 281 F. 981, 986 (4th Cir.), *cert. denied*, 260 U.S. 724 (1922); see, e.g., *York Cove Corp. v. United States*, 317 F. Supp. 799 (E.D. Va. 1970). This immunity is less likely to protect a contractor who exceeds the boundaries of his authority under the contract, *Yearsley v. W.A. Ross Constr. Co.*, 309 U.S. 18, 20-21 (1940), *cited with approval in Agent Orange I*, 506 F. Supp. at 793, or whose actions cause injuries that are not incidental to, or an avoidable consequence of, performing the contract. *Converse v. Portsmouth Cotton Oil Ref. Corp.*, 281 F. at 984; *Schrader v. Hercules, Inc.*, 489 F. Supp. 159, 161 (W.D. Va. 1980).

22. *Agent Orange II*, 534 F. Supp. at 1055.

uct.²³ Specifications typically prescribe the technical requirements for a material, product, or service, including the inspection, assembly, and testing procedures that the contractor must follow.²⁴ The government has exclusive control over the design, use, and application of the products it procures;²⁵ for this reason, courts and administrative agencies have held that the government impliedly warrants that compliance with its specifications will produce a satisfactory product.²⁶

Contract plans can generally be classified as one of three varieties: "design,"²⁷ "purchase description,"²⁸ or "performance"²⁹

23. The government's authority to contract is either conferred by statute or derived from powers that are incident to national sovereignty. See *United States v. Curtiss-Wright Export Corp.*, 299 U.S. 304, 318 (1936).

Several statutes and regulations govern military procurement. See, e.g., Armed Services Procurement Act, 10 U.S.C. §§ 2301-2314 (1976); Wunderlich Act, 41 U.S.C. §§ 321-322 (1976); Armed Services Procurement Regulations, 32 C.F.R. § 1 (1981); see also Laurie, *Negotiated Contracts with the Armed Forces*, 30 MICH. ST. B.J. 11 (1951).

24. W. KEYES, *KEYES ENCYCLOPEDIA OF PROCUREMENT LAW* S-30 (2d ed. 1982).

25. *J.L. Simmons Co. v. United States*, 412 F.2d 1360, 1362 (Ct. Cl. 1969) (design specifications); *Aerodex, Inc.*, 1962 B.C.A. (CCH) ¶ 3492, at 17,822, *rev'd on other grounds*, 417 F.2d 1361 (Ct. Cl. 1969) (purchase description specifications).

The government's exclusive control over, and knowledge about, its contract specifications may relieve a contractor from the need "to investigate for himself whether compliance with the specifications would . . . produce the desired result." *R.M. Hollingshead Corp. v. United States*, 111 F. Supp. 285, 286 (Ct. Cl. 1953); see also *Agent Orange II*, 534 F. Supp. at 1055 (contractor's duty to notify government of superior knowledge "would not impose upon a supplier any duty of testing that was not included in the specifications"); *Seven Sciences, Inc.*, 77-2 B.C.A. (CCH) ¶ 12,730, at 61,878 (1977) (contractor "was reasonable in assuming, without inquiry, that the Government would furnish original [drawings]").

26. See *United States v. Spearin*, 248 U.S. 132 (1918) (seminal case holding that implied warranty attaches to government specifications); *Poorvu v. United States*, 420 F.2d 993 (Ct. Cl. 1970) (no time constraints on implied warranty); *L.W. Foster Sportswear Co. v. United States*, 405 F.2d 1285 (Ct. Cl. 1969) (one government agency held responsible for implied warranty created by another); *Helene Curtis Indus. v. United States*, 312 F.2d 774 (Ct. Cl. 1963) (government impliedly warrants method of production); *Seven Sciences, Inc.*, 77-2 B.C.A. (CCH) ¶ 12,730, at 61,877 (1977) (government impliedly warrants design specifications); *Aerodex, Inc.*, 1962 B.C.A. (CCH) ¶ 3492, *rev'd on other grounds*, 417 F.2d 1361 (Ct. Cl. 1969) (government impliedly warrants purchase description specifications). For a detailed account of the scope of the government's implied warranty of its contract's specifications, see Comment, *The Scope and Limitations of the Implied Warranty on Federal Government Design Specifications*, 6 PEPPERDINE L. REV. 409 (1979).

27. Design specifications "set forth precise measurements, tolerances, materials, in process and finished product tests, quality control, inspection requirements, and other specific information." W. KEYES, *supra* note 24, at S-31; see *Aerodex, Inc.*, 1962 B.C.A. (CCH) ¶ 3492, at 17,822, *rev'd on other grounds*, 417 F.2d 1361 (Ct. Cl. 1969).

28. Purchase description specifications are not as detailed as design specifications; they prescribe only "the technical requirements [e.g., manufacturer's model, part number, or description] or desired performance characteristics of the supplies or services to be procured." W. KEYES, *supra* note 24, at P-38. Purchase description specifications can be as

specifications. The government impliedly warrants its design³⁰ and purchase description³¹ specifications, but does not warrant performance specifications, which require the contractor to exercise a considerable amount of discretion in achieving the government's performance objective.³² The government breaches its implied war-

precise as the design specifications, for they can also include testing, packaging, and marking requirements. Purchase description specifications typically are used when formal government specifications that describe supplies and services are not required by law. *Id.*; see *Aerodex, Inc.*, 1962 B.C.A. (CCH) ¶ 3492, at 17,822, *rev'd on other grounds*, 417 F.2d 1361 (Ct. Cl. 1969).

29. Performance specifications state the desired performance characteristics for the product to be manufactured, but do not prescribe the manner in which they are to be accomplished. The contractor is given discretion to achieve the government's design, engineering, or performance requirements. See *Aerodex, Inc.*, 1962 B.C.A. (CCH) ¶ 3492, at 17,822, *rev'd on other grounds*, 417 F.2d 1361 (Ct. Cl. 1969).

30. *J.L. Simmons Co. v. United States*, 412 F.2d 1360, 1363 (Ct. Cl. 1969); *Blake Constr. Co.*, 73-1 B.C.A. (CCH) ¶ 9819, at 45,894 (1973).

A contractor must strictly comply with design specifications to avail itself of the government's implied warranty. *Seven Sciences, Inc.*, 77-2 B.C.A. (CCH) ¶ 12,730, at 61,876 (1977); *Blake Const. Co.*, 73-1 B.C.A. (CCH) ¶ 9819, at 45,895 (1973). Accordingly, a contractor who is manufacturing a product pursuant to design specifications is not permitted to decide what materials are equally satisfactory substitutes for those specified in its contract with the government. *Seven Sciences, Inc.*, 77-2 B.C.A. (CCH) ¶ 12,730, at 61,876; *Cameo Bronze, Inc.*, 73-2 B.C.A. (CCH) ¶ 10,135, at 47,653 (1973); *Blake Constr. Co.*, 73-1 B.C.A. (CCH) ¶ 9819, at 45,896 (1973).

31. *Monitor Plastics Co.*, 72-2 B.C.A. (CCH) ¶ 9626, at 44,971 (1972); *Aerodex, Inc.*, 1962 B.C.A. (CCH) ¶ 3492, at 17,822, *rev'd on other grounds*, 417 F.2d 1361 (Ct. Cl. 1969).

The government impliedly warrants the performance of a product manufactured pursuant to purchase description specifications, even if the contractor substitutes one brand name item for another. *Aerodex, Inc.*, 1962 B.C.A. (CCH) ¶ 3492, at 17,822. A contractor must be sure, however, that its replacement item is an acceptable substitute. *Id.* A contractor who elects to manufacture a substitute product in-house should make certain that the substitute is in fact the equal of the specified brand name product. *Id.* The contractor must, however, supply the government with sufficient information about the substitute to enable the government to determine whether the substitute will meet the contract's requirements. *Polyphase Contracting Corp.*, 68-1 B.C.A. (CCH) ¶ 6759, at 31,260 (1968). The government may not reject substitute items because of minor differences in design, construction, or other features that do not affect the suitability of the items for their intended use. *Id.*

32. *John Thomason Press & Mfg. Co. v. United States*, 57 Ct. Cl. 200, 209 (1922); *Aerodex, Inc.*, 1962 B.C.A. (CCH) ¶ 3492, at 17,822.

The characterization of contract specifications is not always straightforward. Some contracts contain a mixture of design, purchase description, and performance specifications. See, e.g., *Monitor Plastics Co.*, 72-2 B.C.A. (CCH) ¶ 9626 (1972); *A.C. Hoyle Co.*, 71-2 B.C.A. (CCH) ¶ 9137 (1971); *Dynalelectron Corp.*, 69-1 B.C.A. (CCH) ¶ 7595 (1969); *Aerodex, Inc.*, 1962 B.C.A. (CCH) ¶ 3492, at 17,822. Courts determine the predominant intent of the parties before classifying these hybrid specifications. See *Penguin Indus. v. United States*, 530 F.2d 934, 937 (Ct. Cl. 1976). Each portion of the specifications is examined to determine which party should assume responsibility. See, e.g., *Santa Fe Eng'rs, Inc.*, 79-2 B.C.A. (CCH) ¶ 14,083, at 69,275-76 (1979); *In-Trol Div. of Aseeco Corp.*, 76-2 B.C.A. (CCH) ¶ 12,085, at 58,037 (1976); *Monitor Plastics Co.*, 72-2 B.C.A. (CCH) ¶ 9626, at 44,971 (1972); *A.C. Hoyle Co.*, 71-2 B.C.A. (CCH) ¶ 9137, at 42,369 (1971); *Blackhawk Heating & Plumbing Co.*, 70-1 B.C.A. (CCH) ¶ 8303, at 38,572 (1970).

ranty if it submits defective specifications to the contractor³³ or withholds from the contractor material information that was not reasonably available elsewhere.³⁴

33. Whether the contractor may refuse to perform the contract with inadequate specifications depends on both the seriousness of the government's breach and its impact on the contractor's ability to perform. When the government submits defective specifications, a contractor may refuse to perform its contract. *G.W. Galloway Co.*, 77-2 B.C.A. (CCH) ¶ 12,640 (1977). Further, a contractor who attempts to comply with defective specifications is entitled to recover damages from the government for its added costs. *Hol-Gar Mfg. Co. v. United States*, 360 F.2d 634, 638 (Ct. Cl. 1966). A different situation exists when a contractor develops specifications that turn out to be defective; in this case, the contractor may not recover damages for its additional costs. *Austin Co. v. United States*, 314 F.2d 518, 520 (Ct. Cl.), *cert. denied*, 375 U.S. 830 (1963). But if the government approves of specifications developed by the contractor, then the contractor may recover for additional work done under the contract. *Tranco Indus.*, 78-2 B.C.A. (CCH) ¶ 13,307, at 65,083 (1978); *E.L. Courmand & Co.*, 60-2 B.C.A. (CCH) ¶ 2840, at 14,754, 14,761-64 (1960).

A contractor may refuse to perform a government contract if it is commercially impossible for it to comply with the contract specifications. See *R.E.D.M. Corp. v. United States*, 428 F.2d 1304 (Ct. Cl. 1970); *Finast Metal Prods., Inc.*, 77-1 B.C.A. (CCH) ¶ 12,331, at 59,615 (1977). The contractor's lack of adequate finances is not a legally cognizable reason for not performing. *Continental Rubber Works*, 80-2 B.C.A. (CCH) ¶ 14,754, at 72,828 (1980); see also *Seven Sciences, Inc.*, 77-2 B.C.A. (CCH) ¶ 12,730, at 61,878 (1977) ("The contractor may not simply assert that the item is not buildable, make little or no engineering effort, attempt to get the contractual requirements changed, and then abandon performance when the change is not forthcoming.") (quoting Brief for Government at 28).

34. *H.N. Bailey & Assocs. v. United States*, 449 F.2d 376 (Ct. Cl. 1971).

[T]he Government violates its contractual obligations if it permits the contractor to . . . undertake a . . . [project] which the Government knows to be defective, provided that the Government possesses knowledge which is vital to the successful completion of the contract, and provided further that it is unreasonable to expect the contractor to obtain that vital information from any other accessible source. . . . [T]he corollary of [this rule] is that the Government is under no duty to volunteer information in its files if the contractor can reasonably be expected to seek and obtain the facts elsewhere

Id. at 382-83; see *Helene Curtis Indus. v. United States*, 312 F.2d 774, 778 (Ct. Cl. 1963); *Continental Rubber Works*, 80-2 B.C.A. (CCH) ¶ 14,754, at 72,830-31 (1980); *LaPointe Indus.*, 78-2 B.C.A. (CCH) ¶ 13,444, at 65,694-95 (1978); *Bermite Div. of Whittaker Corp.*, 77-2 B.C.A. (CCH) ¶ 12,674, at 61,506 (1977); *Santa Fe Eng'rs, Inc.*, 75-2 B.C.A. (CCH) ¶ 11,570, at 55,244 (1975). By not disclosing its exclusively held knowledge, the government misleads the contractor into a disastrous bargain. *Midvale-Heppenstall Co.*, 65-1 B.C.A. (CCH) ¶ 4629, at 22,116 (1965).

The government is not, however, obligated to share with its contractors every piece of information that it may have about the products it procures. Rather, the extent of required disclosure depends on a number of factors, including "the state of the bidders' knowledge, the significance of the particular information to the performance of the contract, the ease of discovering the information from other sources, [and] the Government's understanding of the importance of its information." *Helene Curtis*, 312 F.2d at 779 n.2.

The "superior knowledge" rule does not apply to the government's "general knowledge" about specifications. *Continental Rubber Works*, 80-2 B.C.A. (CCH) ¶ 14,754, at 72,830 (1980). General knowledge is not held exclusively by the government and is, by definition, available to the contractor. But the rule does apply in cases in which the contractor has a duty to notify the government about defects in the specifications. *Dynalectron Corp. v.*

B. Contractor Compliance with Government Specifications

The government contract defense requires as its second element that the contractor prove actual compliance "in all material respects"³⁵ with the requirements of the specifications.³⁶ Compliance is a question of fact that requires "a comparison of the government's specifications for the [procured product] with the characteristics and quality of the product supplied."³⁷ A contractor's performance is nonconforming "if the discrepancy between specifications and product [is] a material one."³⁸ If the contractor complied "in all material respects" with the government's plans, then he is insulated from products liability even if the government's specifications were defective.³⁹

Courts have applied both negligence and strict liability standards to determine whether a contractor complied with the government's specifications.⁴⁰ When applying a negligence standard, a court ascertains whether the contractor undertook to perform the contract even though it knew or should have known that the government's specifications were defective,⁴¹ or whether it breached a duty owed to a user or consumer.⁴² Application of a negligence

United States, 518 F.2d 594 (Ct. Cl. 1975). A contractor who knows or should have known of an obvious government error in the contract specifications is obligated to call it to the government's attention. *Allied Contractors, Inc. v. United States*, 381 F.2d 995, 999 (Ct. Cl. 1967). Failure to notify the government about such information could negate the government's implied warranty. *Anthony M. Meyerstein, Inc. v. United States*, 137 F. Supp. 427, 430-31 (Ct. Cl. 1956).

35. *Agent Orange II*, 534 F. Supp. at 1055.

36. See *Sanner v. Ford Motor Co.*, 144 N.J. Super. 1, 364 A.2d 43 (Law Div. 1976), *aff'd*, 154 N.J. Super. 407, 381 A.2d 805 (App. Div. 1977), *certification denied*, 75 N.J. 616, 394 A.2d 846 (1978). "A manufacturer is bound to comply with plans and specifications provided to it by the Government in the production of military equipment. If it does it is insulated from liability." *Id.* at 9, 364 A.2d at 47.

37. 534 F. Supp. at 1057.

38. *Id.*

39. *Casabianca v. Casabianca*, 104 Misc. 2d 348, 350, 428 N.Y.S.2d 400, 402 (Sup. Ct. 1980) (Army contractor that followed defective government specifications held not liable for plaintiff's personal injuries).

40. *Challoner v. Day & Zimmermann, Inc.*, 512 F.2d 77, 83 (5th Cir.) (applying strict liability standard), *vacated on other grounds*, 423 U.S. 3 (1975); *Foster v. Day & Zimmermann, Inc.*, 502 F.2d 867 (8th Cir. 1974) (applying strict liability standard); *Littlehale v. E.I. du Pont de Nemours & Co.*, 268 F. Supp. 791, 804 (S.D.N.Y. 1966) (applying negligence standard), *aff'd*, 380 F.2d 274 (2d Cir. 1967).

41. A contractor is not justified in relying on the government's specifications if he knows or should have known of defects in the plans. See *supra* note 34.

42. A government contractor's duty to warn foreseeable users of its products was addressed in *Littlehale v. E.I. du Pont de Nemours & Co.*, 268 F. Supp. 791 (S.D.N.Y. 1966), *aff'd*, 380 F.2d 274 (2d Cir. 1967). During World War II, the War Department provided du Pont, the contractor, with detailed specifications for the manufacture of explosives to be

standard is puzzling, however, because manufacturers usually are subjected to a more rigorous products liability standard.⁴³ Under this stricter standard, a court need only determine whether the finished product was defective when it left the contractor's control.⁴⁴

C. *The Parties' Relative Knowledge of the Hazards*

The "central question"⁴⁵ under the contract specification theory is "whether the government [knows] as much as the [contractor] . . . about the hazardous aspects of [the procured] product."⁴⁶ A contractor can successfully plead the government contract defense only if the government knows "*as much as or more*" than the contractor about the potential hazards of the production process or

used solely by Army personnel "thoroughly trained in the dangers and use of blasting caps." Littlehale, an untrained civilian employee, sustained injury when his misuse of a blasting cap caused it to detonate prematurely. In his products liability suit against du Pont, Littlehale claimed that du Pont was negligent in failing to provide warnings (beyond those required by the government) of the inherent dangers of the explosives. In affirming the district court's dismissal of the lawsuits, the United States Court of Appeals for the Second Circuit held that the contractor's duty to warn extended only to foreseeable users of the product. 380 F.2d at 276.

The *Littlehale* decision is somewhat confusing because the district court discussed the relevance of products liability law, but never explained why products liability did not apply under the facts of the case. See 268 F. Supp. at 864.

43. In *Foster v. Day & Zimmermann, Inc.*, 502 F.2d 867 (8th Cir. 1974), a prematurely exploding hand grenade seriously injured an Army ROTC recruit participating in a training exercise. The soldier sued the manufacturers of the grenade for damages based on strict liability. The United States Court of Appeals for the Eighth Circuit affirmed the district court's decision for the plaintiff, holding that there was sufficient evidence to allow the jury to conclude that the grenade was defective when it left the manufacturer's possession.

The United States Court of Appeals for the Fifth Circuit reached the same result in *Challoner v. Day & Zimmermann, Inc.*, 512 F.2d 77 (5th Cir.), *vacated on other grounds*, 423 U.S. 3 (1975). In *Challoner* a prematurely exploding howitzer round seriously injured one soldier and killed another while they were fighting the North Vietnamese in Cambodia. The Fifth Circuit affirmed the district court's decision that strict liability, rather than negligence standards, applied in this case. 512 F.2d at 82-83; *see also* *Paoletto v. Beech Aircraft Corp.*, 464 F.2d 976 (3d Cir. 1972) (manufacturer of aircraft built according to Army specifications strictly liable for wrongful death of passenger).

The negligence standard is still appropriate, however, when the relevant issue is whether the contractor has exceeded his contractual authority. If the contractor properly executes its contract, then there is no liability. See *Yearsley v. W.A. Ross Constr. Co.*, 309 U.S. 18 (1940); *infra* notes 118-21 and accompanying text.

44. "A strict liability case, unlike a negligence case, does not require that the defendant's acts or omission be the cause of the defect. It is only necessary that the product be defective when it leaves the [contractor's] control." *Challoner v. Day & Zimmermann, Inc.*, 512 F.2d 77, 83 (5th Cir.), *vacated on other grounds*, 423 U.S. 3 (1975).

45. *Agent Orange II*, 534 F. Supp. at 1057.

46. *Id.*

ultimate product.⁴⁷ "If this knowledge level between supplier and the [government] is at least in balance, the supplier is then shielded by the government contract defense from liability for damages resulting from use of a product supplied pursuant to and in compliance with government contract specifications."⁴⁸ If the contractor's level of knowledge about the potential hazards of the product is greater than the government's, then he is obligated to share with the government his information and to issue warning labels to apprise others of the danger.⁴⁹

This third element of the government contract defense mirrors previous decisions⁵⁰ that determined liability on the basis of the parties' relative level of knowledge about the specifications. A reasonableness standard is applied to determine whether the contractor's reliance on the specifications is justifiable. The logic here is that a contractor who knows or should have known that the specifications are defective cannot reasonably rely on the contract's specifications without first notifying the government of the deficiencies and taking steps to eliminate the hazard.⁵¹ Industry standards,⁵² or the expertise of the contractor,⁵³ serve as a barometer to

47. *Id.* at 1055 (emphasis added).

48. *Id.*

49. *Id.* at 1057. "It is only if [the contractor] concealed or failed to disclose to the government information about [potential] hazards of which the government was ignorant that [the contractor fails] to gain the protection of the government contract defense . . ." *Id.*; see *Dynalectron Corp. v. United States*, 518 F.2d 594 (Ct. Cl. 1975); *Allied Contractors, Inc. v. United States*, 381 F.2d 995 (Ct. Cl. 1967); cf. *supra* text accompanying note 34.

50. See *Sanner v. Ford Motor Co.*, 144 N.J. Super. 1, 364 A.2d 43 (Law Div. 1976), *aff'd*, 154 N.J. Super. 407, 381 A.2d 805 (App. Div. 1977), *certification denied*, 75 N.J. 616, 394 A.2d 846 (1978). The "relative level of knowledge" test also is used in nongovernment, commercial cases involving independent contractors. See *Spangler v. Kranco, Inc.*, 481 F.2d 373 (4th Cir. 1973); *Orion Ins. Co. v. United Technologies*, 502 F. Supp. 173 (E.D. Pa. 1980); *Davis v. Henderlong Lumber Co.*, 221 F. Supp. 129 (N.D. Ind. 1963).

51. See *Allied Contractors, Inc. v. United States*, 381 F.2d 995, 999 (Ct. Cl. 1967); *Dynalectron Corp.*, 69-1 B.C.A. (CCH) ¶ 7595 (1969), *rev'd on other grounds*, 518 F.2d 594 (1975). But see *Barr v. Brezina Constr. Co.*, 464 F.2d 1141 (10th Cir. 1972) (contractor may not recover if it knew of defects in specifications, yet completed the contract).

52. In *Sanner v. Ford Motor Co.*, 144 N.J. Super. 1, 364 A.2d 43 (Law Div. 1976), *aff'd*, 154 N.J. Super. 407, 381 A.2d 805 (App. Div. 1977), *certification denied*, 75 N.J. 616, 394 A.2d 846 (1978), a contractor manufactured jeeps for the government without seatbelts. The Army had ordered vehicles without seatbelts because it believed that seatbelts posed a safety problem (by preventing immediate escape) and reduced the tactical efficiency of the jeeps. 144 N.J. Super. at 4, 364 A.2d at 44. The plaintiff, who was injured when another vehicle struck his jeep from the rear, brought suit against the contractor, alleging that it should be held strictly liable because a jeep without seatbelts was a defective product. The court disagreed and dismissed the case, observing that Federal Motor Vehicle Safety Standard No. 208, 49 C.F.R. § 571.7(c) (1968), "specifically exempts from compliance with [seatbelt requirements] 'a Vehicle or item of equipment manufactured for, and sold directly

determine whether the contractor's reliance is reasonable.

III. PRUDENTIAL ANALYSIS

If it is axiomatic in tort law that the breach of a duty to another must be redressed by the offender or someone else deemed responsible for compensating the injured party, then is it legally and philosophically justifiable to preclude recovery under products liability law because of the government contract defense? One would think that a soldier deserves the maximum assistance of the law in seeking redress for unexpected (and unnecessary) injuries sustained while serving his country in war.⁵⁴ But while the reality of "synthetic living" and man's dependency on manufacturers to supply us with food, apparel, and drugs suggest manufacturer culpability for consumer injuries,⁵⁵ the unique policy considerations underlying the government contract defense advise otherwise.

Conventional products liability law is inappropriate in the

to, the Armed Forces of the United States in conformity with contractual specifications.' " 144 N.J. Super. at 6, 364 A.2d at 45.

Similarly, in *Spangler v. Kranco, Inc.*, 481 F.2d 373 (4th Cir. 1973), the defendant manufactured a crane in accordance with plans and specifications supplied by the plaintiff's employer. The defendant did not equip the crane with any bells or other warning devices that would alert bystanders that the crane was in motion. In his complaint the plaintiff alleged that his injuries were caused by the defendant's negligence in failing to equip the crane properly. The court exonerated the manufacturer from liability, concluding that it "acted reasonably in relying upon [the customer's] industrial expertise and following its plans and specifications, especially since . . . neither the National Safety Code nor the Occupational Health and Safety Act require warning devices on . . . cranes such as the one here in question." *Id.* at 375.

53. In *Davis v. Henderlong Lumber Co.*, 221 F. Supp. 129 (N.D. Ind. 1963), the plaintiff sustained injuries when he inhaled toxic fumes that were not vented from his chemical hood. The district court exonerated the independent contractors responsible for the construction of the laboratory and the hood, because they "had neither the educational background or [sic] experience to question the plans submitted or modifications ordered by [the customer] whose judgment on those matters could justifiably be taken." *Id.* at 135.

In *Orion Ins. Co. v. United Technologies*, 502 F. Supp. 173 (E.D. Pa. 1980), the representative of a helicopter pilot's estate sued the manufacturer of a component of the helicopter in which the pilot was killed, alleging that the manufacturer both defectively designed and manufactured the part. In granting the contractor's motion to dismiss the strict liability claim, the court noted that a manufacturer may reasonably rely on the specifications of a third party who had "an established reputation" and "superior knowledge in the field." *Id.* at 176; see also *Helene Curtis Indus. v. United States*, 313 F.2d 774, 778 (Ct. Cl. 1963) (government had "special knowledge" that grinding chemicals would be necessary and did not inform contractors of this fact).

54. See *infra* text accompanying note 179.

55. *Dalehite v. United States*, 346 U.S. 15, 51 (1953) (Jackson, J., dissenting). Although admittedly in another context, Justice Jackson provides the rationale for this Comment's analysis: "the conditions of contemporary society and . . . the circumstances of the case" dictate a result contrary to the traditional teachings of tort law. *Id.* at 49.

government contract setting because it would either have a chilling effect on a supplier's willingness to contract with the government or it would substantially increase government procurement costs.⁵⁶ Both effects impair the government's discretionary authority over military procurement and may be detrimental to the military effort.⁵⁷ In particular, the application of products liability law in wartime is philosophically inconsistent with the rules of war.⁵⁸

A. *Doctrinal Justification for Products Liability*

The underlying rationale for products liability is multifaceted.⁵⁹ Two factors are relevant to this analysis. First, the public has the right to expect a manufacturer to warrant the safety of his product.⁶⁰ This right is a consequence of the manufacturer's superior knowledge of its product's qualities and capabilities. The consumer's familiarity with a product will not relieve a manufacturer from liability for injuries caused by defects in the product; therefore, the manufacturer has an incentive to adopt safety im-

56. See *infra* notes 65-77 and accompanying text.

57. See *infra* notes 105-75 and accompanying text.

58. See *infra* notes 183-98 and accompanying text.

59. As one commentator has noted:

(1) Manufacturers convey to the public a general sense of product quality through the use of mass advertising and merchandising practices, causing consumers to rely for their protection upon the skill and expertise of the manufacturing community.

(2) Consumers no longer have the ability to protect themselves adequately from defective products due to the vast number and complexity of products which must be "consumed" in order to function in modern society.

(3) Sellers are often in a better position than consumers to identify the potential product risks, to determine the acceptable levels of such risks, and to confine the risks within those levels.

(4) A majority of product accidents not caused by product abuse are probably attributable to the negligent acts or omissions of manufacturers at some stage of the manufacturing or marketing process, yet the difficulties of discovering and proving this negligence are often practicably insurmountable.

(5) Negligence liability is generally insufficient to induce manufacturers to market adequately safe products.

(6) Sellers almost invariably are in a better position than consumers to absorb or spread the costs of product accidents.

(7) The costs of injuries flowing from typical risks inherent in products can fairly be put upon the enterprises marketing the products as a cost of their doing business, thus assuring that these enterprises will fully "pay their way" in the society from which they derive their profits.

Owen, *Rethinking the Policies of Strict Products Liability*, 33 VAND. L. REV. 681, 684-85 (1980) (relying on Montgomery & Owen, *Reflections on the Theory and Administration of Strict Tort Liability for Defective Products*, 27 S.C.L. REV. 803, 809-10 (1976)).

60. See, e.g., *Henningsen v. Bloomfield Motors, Inc.*, 32 N.J. 358, 161 A.2d 69 (1960); W. PROSSER, *LAW OF TORTS* § 97, at 650 (4th ed. 1971).

provements to decrease the risk of injury to the ultimate user of its product.⁶¹ Second, courts impose products liability based on the belief that manufacturers can internalize the cost of insuring the public's safety through production efficiency and higher prices.⁶² In short, a manufacturer can treat the burdens of products liability law as a cost of doing business.

The government contract defense is sensitive to the issues of accountability and cost. It presupposes that tort liability should not be imposed on an "otherwise innocent contractor whose only role in causing [injury to a third party] . . . was the proper performance of a plan supplied by the government."⁶³ Tort liability, as the *Agent Orange I* court observed, is intended to deter contractors from engaging in practices that might invite injury to others.⁶⁴ But, if the contractor is not in a position to prevent the tortious act or omission—and it is not if it must follow the contract's specifications—then the imposition of products liability becomes purposeless and unduly harsh.

The harshness of imposing products liability upon the contractor who follows the government's contract specifications is dramatized by an analysis of the relationship between liability and product cost. Presumably, the potential risk to a government contractor under products liability is great, owing to the scores of items produced and the large number of users. High risk usually invites high insurance premiums, unless the impact of liability can be significantly diluted by an industrywide pooling of the risk. A contractor who makes no changes in either production or business costs, and who wants to keep his profit margin intact, has little choice but to raise his prices substantially.⁶⁵ The government, in turn, would have to pay significantly higher prices for the contractor's services. Past experience indicates that the government will incur these costs only if absolutely necessary.⁶⁶

61. See *Agent Orange I*, 506 F. Supp. at 793 (citing W. PROSSER, *LAW OF TORTS* § 4, at 23 (4th ed. 1971)).

62. See *Greenman v. Yuba Power Prods., Inc.*, 59 Cal.2d 57, 62, 377 P.2d 897, 901, 27 Cal. Rptr. 697, 701 (1962).

63. *Agent Orange I*, 506 F. Supp. at 793.

64. *Id.*

65. G. SULLIVAN, *PRODUCTS LIABILITY: WHO NEEDS IT?* 18-19 (1979). See generally R. POSNER, *ECONOMIC ANALYSIS OF LAW* 88-95 (1972); McKean, *Products Liability: Implications of Some Changing Property Rights*, in *THE ECONOMICS OF LEGAL RELATIONSHIPS* 258-72 (H. Manne ed. 1975).

66. The Swine Flu Immunization Program of 1976 ("Swine Flu Act"), 42 U.S.C. § 247b(j)-(l) (1976), amended by Pub. L. No. 95-626, 92 Stat. 3551 (1978), is a case in point. In March 1976, President Ford requested that Congress pass an appropriations bill to

Contractors who manufacture weapons in wartime face further difficulties in maintaining a reasonable price structure. The problem areas of unique concern to a military manufacturer include: 1) preventing a qualitative reduction in the technical performance and reliability of a manufactured weapon; 2) quickly producing a satisfactory product on short notice; and 3) controlling the cost of ordnance development.⁶⁷ Characteristically, predictions of these variables are more difficult during wartime.

The soldier, like a consumer, often is ignorant of defects in the weapons he uses;⁶⁸ but unlike its nonmilitary counterpart, the de-

finance a massive immunization program intended to avert a swine flu epidemic forecast for that fall. *Hunt v. United States*, 636 F.2d 580, 589 & n.22 (D.C. Cir. 1980). Although Congress acceded to the President's request, problems developed when the vaccine manufacturers refused to participate because their insurers would not underwrite strict products liability policies. *Id.* at 589-90 & n.26. After the insurance companies rejected proposals that called for the government either to indemnify or reinsure the insurance companies, Congress hastily passed, and the President quickly signed, the Swine Flu Act. *Id.* at 590-91. Under the Swine Flu Act, "[a] claim that would otherwise have been available against a program participant [defined under § 247b(k)(2)(B) of the Act to include the vaccine manufacturer or distributor, the agency or organization that administered the vaccinations, and the medical personnel who assisted in providing the inoculations] instead would be brought against the United States, under the procedures of the Tort Claims Act, with the United States substituting for the program participant as the party defendant." *Id.* at 592. Congress agreed to insure the program participants from products liability "on an emergency basis," *id.* at 592 n.33, to avoid "a serious potential public health threat." *Id.* at 589.

But for extraordinary circumstances such as the feared swine flu epidemic, Congress generally does not insure its operatives against products liability. This policy is consistent with the intent of the Federal Tort Claims Act not to expose the government to limitless liability. *See, e.g., Clemente v. United States*, 567 F.2d 1140, 1146 (1st Cir. 1977), *cert. denied*, 435 U.S. 1006 (1978); *Gelley v. Astra Pharmaceutical Prods., Inc.*, 446 F. Supp. 182, 186 (D. Minn.), *aff'd*, 610 F.2d 558 (8th Cir. 1979); *In re Franklin Nat'l Bank Sec. Litig.*, 445 F. Supp. 723, 731 (E.D.N.Y. 1978); H.R. REP. No. 1287, 79th Cong., 1st Sess. 2 (1945); *see also Gellhorn & Schenck, Tort Actions Against the Federal Government*, 47 COLUM. L. REV. 722, 722 (1947) (the doctrine of sovereign immunity survived in the United States after the Revolutionary War because of concern about the financial instability of the early states).

Thus far, Congress has failed to adopt comprehensive legislation that would protect the chemical companies in the Agent Orange controversy from products liability. If Congress is reluctant to pass an insurance scheme as all-encompassing as the Swine Flu Act, then perhaps a measure that imposes a ceiling on the contractor's liability would be more palatable. *See Duke Power Co. v. Carolina Envtl. Study Group*, 438 U.S. 59, 65 (1978) (discussing Price-Anderson Act of 1957, 42 U.S.C. § 2210 (1976 & Supp. IV 1980)) ("[N]uclear industry was required to purchase the maximum available amount of privately underwritten public liability insurance, and . . . if damages from a nuclear disaster exceeded . . . that private insurance coverage, the Federal Government would indemnify the licensee . . . in an amount not to exceed \$500 million."); *see also infra* note 74.

67. *See infra* notes 92-96 and accompanying text.

68. A soldier's lack of familiarity with the weapon that caused his injuries is relevant in a negligence case. *See, e.g., Littlehale v. E.I. du Pont de Nemours & Co.*, 268 F. Supp. 791 (S.D.N.Y. 1966), *aff'd*, 380 F.2d 274 (2d Cir. 1967) (explosives manufacturer had no duty to issue detailed warning to unforeseeable user).

fense contractor cannot always impose rigorous quality control measures. Contractor compliance with military orders often requires quick work, the use of untested materials, and innovative laboratory techniques. These requirements increase uncertainty and reduce the likelihood of effective quality control.⁶⁹ Therefore, due to time constraints ultimately imposed by the war itself, government contractors often must sacrifice some measure of product safety.⁷⁰ Quality control becomes even more difficult when a manufacturer must make wholesale changes in its mode of operation and sizeably increase its labor force to complete a contract.⁷¹

This reduction in quality control, coupled with the widespread use of weapons and other military products, makes it considerably more difficult for a government contractor to warrant the safety of its product at an affordable price.⁷² No problem would exist if the government had carte blanche to spend money for weapons. But the government does not have an unlimited defense budget, not even in wartime; it still remains economically and politically accountable for its defense expenditures. Consequently, without the government contract defense, a contractor would be required to internalize the costs of insuring its weapons' ultimate users, a particularly heavy burden to bear.⁷³ Not surprisingly, a contractor whose defective product injures many soldiers, as in *Agent Orange*, faces almost certain financial ruin.⁷⁴ Because the market forces that reg-

69. See Moore, *Efficiency and Public Policy in Defense Procurement*, 29 LAW & CONTEMP. PROBS. 3, 8-9 (1964).

70. See *Montgomery v. Goodyear Tire & Rubber Co.*, 231 F. Supp. 447 (S.D.N.Y. 1964). In *Montgomery* a dirigible manufactured for the Navy crashed when its defectively made seams split. In a suit by a passenger injured in the crash, the dirigible's manufacturer argued that the defects that caused the crash were in large measure due to its expedition of the government's wartime order. The court acknowledged that wartime orders might require the sacrifice of some element of safety, but still found the manufacturer liable for breach of an implied warranty. *Id.* at 450.

71. For example, during World War II, Chrysler Corporation transformed itself from a manufacturer of civilian automobiles into a producer of tanks, guns, and ammunition. The company built new manufacturing plants and, by 1943, had increased its labor force twenty-fold. W. STOUT, *BULLETS BY THE BILLIONS* 2 (1946).

72. See RATE AND DIRECTION OF INVENTIVE ACTIVITY: ECONOMIC AND SOCIAL FACTORS 16 (R. Nelson ed. 1963); Kerr, *Techniques of Measuring Cost-Effectiveness of Weapons Systems*, 75 AERONAUTICAL J. 665 (1971); see also Dix & Riddell, *Projecting Cost-Performance Trade-Offs for Military Vehicles*, 14 ASTRONAUTICS & AERONAUTICS 40, 42, 48-49 (1976); Hudock, *Building an Affordable Weapon*, 13 ASTRONAUTICS & AERONAUTICS 2, 3 (1975); cf. L. MARTIN, *ARMS AND STRATEGY* 269 (1975) (governments now realize that they must plan in their budgets for the "high and rapidly rising cost of modern military equipment . . . and operations").

73. See *Orion Ins. Co. v. United Technologies*, 502 F. Supp. 173, 178 (E.D. Pa. 1980).

74. In *Agent Orange* the plaintiffs seek damages "in the range of \$4 billion to \$40

ulate military procurement are operative even in war,⁷⁵ the government contractor who must pay excessive amounts to obtain products liability insurance will elect not to compete for government contracts that exact so large a price for so small a gain. As the court in *Agent Orange I* explained,

Where . . . manufacturers claim to have been compelled by federal law to produce a weapon of war without [the] ability to negotiate specifications, contract price or terms, the potential for unfairly imposing liability becomes great. Without the government contract defense a manufacturer capable of producing military goods for government use would face the untenable position of choosing between severe penalties for failing to supply products necessary to conduct a war, and producing what the government requires but at a contract price that makes no provision for the need to insure against potential liability for design flaws in the government's plans.⁷⁶

billion." *Agent Orange III*, 635 F.2d at 989 n.5. The plaintiffs concede that the defendants are incapable of compensating the entire plaintiff class. *Id.* at 989 (citing Complaint ¶ 15).

The prospects are not much brighter for asbestos manufacturers involved in similar lawsuits. Johns-Manville Corporation, the nation's largest asbestos manufacturer, filed for reorganization under chapter 11 of the federal bankruptcy code, 11 U.S.C. §§ 1101-1146 (Supp. IV 1980), when it became apparent that defending the pending (16,500) and anticipated lawsuits (32,000) by workers stricken with asbestos-related diseases would cost the company over two billion dollars. *Miami Herald*, Aug. 29, 1982, at P1, col. 1. *But cf.* *Dalehite v. United States*, 346 U.S. 15, 54 (1953) (Jackson, J., dissenting) ("The size of the catastrophe does not excuse liability but, on its face, eloquently pleads that it could not have resulted from any prudently operated government project, and that injury so sudden and sweeping should not lie where it has fallen.").

In the *Agent Orange* controversy, approximately 2.5 million people are "at risk" because of exposure to the herbicide. This does not include either teratogenic children or children yet to be born whose fathers carry defective genes as a result of exposure. The size of this potential plaintiff class probably will spell financial disaster for the defendant chemical companies if they lose the present litigation.

Insurance law does not provide the chemical companies with much comfort. The common law permits insurance companies to limit their liability for injuries during wartime because of the increased risk they otherwise would be required to bear. *See generally* Simon, *The Dilemma of War and Military Exclusion Clauses in Insurance Contracts*, 19 AM. BUS. L.J. 31 (1981); Note, *War Exclusion Clauses and Undeclared Wars*, 39 TENN. L. REV. 328 (1972). At least one commentator has suggested the formation of a contractor trust fund, administered by the insurance industry, to pay compensatory damages to soldiers injured by Agent Orange. Meyers, *supra* note 3, at 192; *supra* note 66.

75. *See, e.g., Powell v. United States Cartridge Co.*, 339 U.S. 497 (1949). Wartime conditions serve to reinforce the government policy "to refrain . . . from doing its own manufacturing and to use, as much as possible (in the production of munitions), the experience in mass production and the genius for organization that has made American industry outstanding in the world." *Id.* at 506; Mansfield, *Contribution of Research and Development to Economic Growth of the United States*, in RESEARCH AND DEVELOPMENT AND ECONOMIC GROWTH/PRODUCTIVITY 21 (1971).

76. *Agent Orange I*, 506 F. Supp. at 794.

Given the potential economic demise posed by the imposition of products liability, it follows that a contractor who accepts a government contract will be wary of deviating from the commonly accepted methods of design or production at a time when innovation may be required to satisfy the government's order.⁷⁷ Advanced weapons systems, by definition, necessitate new ideas and methods of solving problems. Often during war, little testing time is available before deployment of a weapon.⁷⁸ The engineering and scientific communities will be less responsive to wartime needs if they are faced with products liability for a defective innovation.

The government contract defense has not yet received widespread support from the courts⁷⁹ or legal scholars.⁸⁰ The disagreement starts with the defense's underlying premise that the government, as the architect of its contract specifications, is responsible for the consequences of the nonnegligent application of the plans by the contractor. Critics of the defense argue that it is nothing more than an unjustified dilution of the products liability doctrine.⁸¹ Products liability, they suggest, is indifferent to the influence of the warranty or sovereign immunity doctrines; all that is necessary to establish contractor liability is proof that a defective or unreasonably dangerous product manufactured by the contractor injured the user. Accordingly, if a manufactured product is defective, the contractor should be liable *ipso facto* under products liability law.

The criticism leveled at the government contract defense is based on traditional notions of products liability, and completely ignores the unique "considerations of fairness and public policy"⁸²

77. See, e.g., *Orion Ins. Co. v. United Technologies*, 502 F. Supp. 173, 178 (E.D. Pa. 1980); cf. Comment, *Products Liability: The Impact on California Manufacturers*, 19 AM. BUS. L.J. 343, 357-58 (1981) (over 20% of the manufacturers responding reported that they dropped product lines due to products liability law).

78. See Butz, *Unexpected Rocket Problems Boost Test Facility Needs*, AVIATION WK., Jan. 4, 1960, at 52.

79. See, e.g., *Keifer & Keifer v. Reconstruction Fin. Corp.*, 306 U.S. 381, 388 (1938) (government-financed and managed corporation may be sued if Congress has expressly conferred the authority to sue and be sued; generally, "government does not become the conduit of its immunity in suits against its agents or instrumentalities merely because they do the work"); *Challoner v. Day & Zimmermann, Inc.*, 512 F.2d 77 (5th Cir.), *vacated on other grounds*, 423 U.S. 3 (1975); *Whittaker v. Harvell-Kilgore Corp.*, 418 F.2d 1010 (5th Cir. 1969).

80. See Davis, *supra* note 8; Commentary, *supra* note 3, at 176-77; Comment, *The Government Contract Defense in Strict Liability Suits for Defective Design*, 48 U. CHI. L. REV. 1016 (1981).

81. See Davis, *supra* note 8, at 50.

82. *Agent Orange I*, 506 F. Supp. at 793.

that serve as the foundation of the defense.⁸³ The government contract defense recognizes the special role played by the government in the procurement process.⁸⁴ The thrust of the defense is that the government's decision to contract is a discretionary function that must remain unencumbered, *notwithstanding* an otherwise valid concern for user safety. The flexibility to make discretionary decisions is assured as long as there remain manufacturers willing to contract and the government can afford to pay for the manufacturers' services or materials. Products liability threatens this flexibility by either requiring the government to pay substantially higher prices for the products it procures⁸⁵ or by limiting the number of contractors willing to undertake a government order.⁸⁶

Simply because the need to protect the government's discretionary authority over military procurement supersedes the imposition of products liability does not mean that user safety is ignored under the government contract defense. Presumably, the government acts in the best interests of the citizenry,⁸⁷ and it will

83. Not surprisingly, critics of the government contract defense urge the imposition of traditional products liability law. A complaint based on negligence or breach of warranty is not likely to succeed if either the contract specifications were not patently defective or the contractor made no representations that potential users might rely upon in purchasing the product. Thus, strict products liability may be the only legal avenue still available to an injured party. *See supra* note 17 and accompanying text.

84. The presence of the government in the contracting process requires the courts to apply a different judicial standard. *See Agent Orange I*, 534 F. Supp. at 1054 n.1. As one court observed:

[W]here a party contracts with the Government and the Government specifies the means by which the product is to be manufactured and other details incident to the production, the manufacturer's acts in accordance with the plans are at the very least not measurable by the same tests applicable to a manufacturer having sole discretion over the method of manufacture, and at the most are insulated from any liability.

Littlehale v. E.I. du Pont de Nemours & Co., 268 F. Supp. 791, 804 n.17 (S.D.N.Y. 1966), *aff'd*, 380 F.2d 274 (2d Cir. 1967); *see R.M. Hollingshead Corp. v. United States*, 111 F. Supp. 285, 286 (Ct. Cl. 1953).

85. *See supra* notes 65-76 and accompanying text.

86. *See supra* text accompanying notes 77-78.

87. Our Founding Fathers envisioned a government that would act in the national interest. James Madison, writing in the tenth *Federalist*, observed:

The effect of [citizens delegating power to a few representatives] . . . is . . . to refine and enlarge the public views, by passing them through the medium of a chosen body of citizens, whose wisdom may best discern the true interest of their country, and whose patriotism and love of justice, will be least likely to sacrifice it to temporary or partial considerations. Under such a regulation, it may well happen, that the public voice, pronounced by the representatives of the people, will be more consonant to the public good, than if pronounced by the people themselves, convened for that purpose.

THE FEDERALIST No. 10, at 109-10 (J. Madison) (J. Hamilton ed. 1873).

not order the manufacture of a hazardous product unless necessary. Further, it is questionable whether product safety would improve if products liability were imposed on government contractors, because no pressure is placed on the government to provide specifications that will result in the manufacture of safer products.⁸⁸ Scrutinizing the actions of the government contractor will not necessarily cause it to furnish a safer product, because it still is required to follow the contract's specifications. Admittedly, the contractor should and, in fact, is legally required to notify the government of defects in the specifications.⁸⁹ But the reality of the situation is that if the government does not agree to changes in the specifications, then the contractor must either forfeit the job or make the changes and assume responsibility for the consequences of its actions.⁹⁰

Those who criticize the use of the government contract defense to relieve a manufacturer of products liability also argue that commercial and military contractors face similar problems, and therefore both should be held accountable under tort law. This comparison fails to recognize, however, that weapons development

The United States Constitution is replete with examples of our Founding Fathers' belief that the government should act in the best interests of the citizenry. See, for example, the preamble to the United States Constitution, along with article I, section 8, and the Bill of Rights. Historians have documented this conceptualization of the Constitution as being not only desirable, but also necessary to ensure that private concerns did not motivate government decisions. See P. BATOR, P. MISHKIN, D. SHAPIRO & H. WECHSLER, *HART AND WECHSLER'S FEDERAL COURTS AND THE FEDERAL SYSTEM* 1-3 (2d ed. 1973).

The fact that a state officer can be subjected to a federal injunction when he exceeds the scope of his powers also supports the proposition that the government and its officials are expected to act in the best interests of the citizenry. This analysis, first explained in *Ex parte Young*, 209 U.S. 123, 159 (1908), suggests that a state officer or agent who acts unconstitutionally is susceptible to a federal injunctive order because he is not acting on behalf of the state. The conclusion assumes that the constitutional actions of a state official are not personally motivated; rather, they are based on the official's view of the needs of the state's citizenry. *Id.* at 160; see also *Larson v. Domestic & Foreign Corp.*, 337 U.S. 682, 689-90 (1948) (private corporations sought to enjoin the War Assets Administration from selling or delivering coal to any customer other than itself); *Luther v. Borden*, 48 U.S. (7 How.) 1 (1849) (President acted properly in calling out militia to quell an uprising among Rhode Island citizens who were attempting to replace their colonial charter with a new constitution).

The author wishes to thank Professor Patrick Gudridge of the University of Miami School of Law for his helpful advice on this point.

88. The doctrine of sovereign immunity protects the government from tort liability; the Federal Tort Claims Act, 28 U.S.C. §§ 1291, 1346, 1402, 1504, 2110, 2401, 2404, 2411-2412, 2671-2680 (1976 & Supp. IV 1980), delineates the circumstances in which the government has waived this immunity. See *infra* notes 112-21 and accompanying text.

89. See *supra* note 34.

90. See *supra* notes 21, 30 & 31.

is like few other activities in the American economy.⁹¹ In their book, *The Weapons Acquisition Process: An Economic Analysis*,⁹² authors Peck and Scherer explain the differences:

[Military manufacturing] is characterized by unique elements of uncertainty resulting from the combination of, first, the extent to which weapons press the limits of existing engineering art and scientific knowledge^[93] and, second, the character of the demand for weapons in a cold war environment.^[94] The better performance of commercial developments in staying within budgets, meeting schedules, and achieving performance objectives is explained largely by the fact that most commercial product developments are not initiated until major state of the art and marketing uncertainties have been resolved.^[95] Under extraordinary competitive pressures, a commercial development occasionally does push the state of the art in a weapons-like way. On such occasions, weapons-like problems tend to occur; cost targets are exceeded, schedules are slipped, and the product fails to meet its performance promises. This would suggest that comparison of weapons and typical commercial developments is

91. Government contractors unsuccessfully raised this defense in *Montgomery v. Good-year Tire & Rubber Co.*, 231 F. Supp. 447 (S.D.N.Y. 1964). In *Montgomery* the contractors had argued that the government's specifications limited their control over the manufacturing process. Such restrictions typically distinguish weapons development from the normal commercial production of goods. For a discussion of this case, see *supra* note 18.

92. M. PECK & F. SCHERER, *THE WEAPONS ACQUISITION PROCESS: AN ECONOMIC ANALYSIS* (1960).

93. See Dix & Riddell, *supra* note 72; Hudock, *supra* note 72, at 2, 4; Mansfield, *supra* note 75, at 24; Woollett, *Physics and Modern Warfare: The Awkward Science*, 48 AM. J. PHYS. 104 (1980).

94. See Smith, *Understanding Weapons Development*, 10 ASTRONAUTICS & AERONAUTICS 16 (1972).

95. Novick, *What Do We Mean by Research and Development?*, CAL. MGMT. REV., Spring 1960, at 9, 9-14. The bulk of commercial research and development activity involves relatively minor improvements or modifications to existing products or processes. *Id.*

Peck and Scherer studied the contrast between military and commercial manufacturing in the late 1950's and early 1960's. They found that the manufacture of military hardware was substantially more dependent upon research and development expenditures than the fabrication of commercial products. M. PECK & F. SCHERER, *supra* note 92, at 25 & n.10. This trend prevails today. The government financed 79% of the aircraft and missile industry in 1975. In contrast, the next highest proportion of government financing was in electrical equipment (45%), followed by the machinery (14%), motor vehicle (14%), and chemical (9%) industries. NAT'L SCIENCE FOUND., *RESEARCH AND DEVELOPMENT IN INDUSTRY 1975*, at 2 (1977).

Research and development expenditures constituted 13% of military aircraft and missile industry sales during 1977. In contrast, these expenditures averaged only 3.1% for all American industries. Even in research-oriented private industries, such as scientific instruments and chemicals, research and development expenditures amounted to only 5.6% and 3.6% of 1977 sales, respectively. NAT'L SCIENCE FOUND., *RESEARCH AND DEVELOPMENT IN INDUSTRY 1977*, at 27 (1979).

hardly a fair index of relative efficiency, and that the direct transfer of business practice to weapons efforts is not, in and of itself, a meaningful solution for improving the acquisition of technically advanced weapons.⁹⁶

Military manufacturing also differs from commercial contracting in that it is not subject to the typical pressures of supply and demand. Technological improvements or military necessity can render a weapons system obsolete; demand can drop precipitously to zero. Unless the product has some commercial utility, the contractor has little choice but to halt production. Commercial contractors generally are not held hostage by a rapidly changing demand for their product. Unlike military manufacturers, they can adjust production and design to reflect changes in marketplace demand.⁹⁷

The presence of the government in the procurement process also distinguishes military and commercial contractors. Commonly, the government plays an integral role in weapons production, either purchasing and supplying raw materials or monitoring the production process.⁹⁸ In many respects, the government, by exercising considerable influence in the procurement process, assumes responsibility for the risks of production.⁹⁹ The government's presence, coupled with the aforementioned factors, serves to blur the allocation of risk among the participants; "it certainly does not resemble the allocation of risk in a normal commercial market and since it does not, the typical incentive and profit arrangements of a commercial market cannot or should not be applied in the same way to defense procurement."¹⁰⁰

By warranting nonnegligently manufactured weapons produced pursuant to its specifications, the government recognizes the unworkability of subjecting a contractor to products liability.¹⁰¹ The contractor is not held accountable for injuries caused by a de-

96. M. PECK & F. SCHERER, *supra* note 92, at 8-9.

97. Moore, *supra* note 69, at 6-7.

98. *Id.* at 6-8; *see, e.g.,* *Dalehite v. United States*, 346 U.S. 15, 18 (1952) (government supervised direction and control of project; Army personnel were responsible for application of plans and overseeing production schedules); *Powell v. United States Cartridge Co.*, 339 U.S. 497, 500 & n.4, 507-08 & n.8 (1949) (government owned plant, equipment, and raw materials; contractor managed activity of personnel); *Whitaker v. Harvell-Kilgore Corp.*, 418 F.2d 1010, 1012-13 (5th Cir. 1969) (government owned plant facility and component parts, and monitored assembly of grenades); *Boeing Airplane Co. v. Brown*, 291 F.2d 310, 316-17 (9th Cir. 1961) (Air Force supervised manufacture and testing of B-52 bomber aircraft).

99. *See supra* notes 24-34 and accompanying text.

100. Moore, *supra* note 69, at 9.

101. *See supra* notes 25-34 and accompanying text.

fective government specification; the government provides the plans and ordinarily takes responsibility for their suitability and safety.¹⁰² In the event a defective weapon injures a soldier, he may seek relief through numerous government military benefit programs.¹⁰³ Because the soldier does not rely on the government contractor to compensate him for wartime injuries, there is no justification for imposing products liability on the contractor; the government, not the contractor, is responsible for both warranting the product and compensating the injured. As a matter of policy, then, the government contractor's duty to produce an item—with the attendant constraints of cost, time, or untested materials—supersedes a third party's right to rely on the contractor to warrant the safety of the weapon.¹⁰⁴

B. *The Necessity for Government Discretionary Authority*

The *Agent Orange II* court concluded that the doctrine of sovereign immunity is the underlying rationale for the government contract defense.¹⁰⁵ The threshold inquiry under this doctrine is whether the government's procurement decision is a discretionary function that is immune from products liability under the Federal Tort Claims Act. Under the government contract defense, the government "extends" its immunity to contractors who have performed their contract obligations nonnegligently.¹⁰⁶

102. See cases cited *supra* note 26.

103. GI benefit programs are authorized by such statutes as 10 U.S.C. §§ 1071-1087 (1976) (medical care for members of uniformed services and their dependents); 38 U.S.C. §§ 310-315 (1976 & Supp. V 1981) (wartime disability compensation); *id.* §§ 321-322 (wartime death compensation); *id.* §§ 331-335 (peacetime disability compensation); *id.* §§ 341-342 (peacetime death compensation).

These benefit programs are usually a soldier's only source of relief because the *Feres* doctrine prevents a soldier from suing the government for injuries sustained "incident to service." *Feres v. United States*, 340 U.S. 135 (1950); see *supra* note 17.

104. See *infra* notes 176-82 and accompanying text.

105. See *Agent Orange II*, 534 F. Supp. at 1055 & n.2. Curiously, the court did not address the interplay between warranty law and the government contract defense, even though the elements of the defense are based on fundamental principles of contract law.

106. *Id.* at 794. The United States Court of Appeals for the Second Circuit has held that "when the government undertakes to perform services, which in the absence of specific legislation would not be required, it will, nevertheless, be liable if these activities are performed negligently." *Ingham v. Eastern Air Lines*, 373 F.2d 227, 236 (2d Cir. 1967) (citing *United States v. Brown*, 348 U.S. 110, 112-13 (1954)); see *Yearsley v. W.A. Ross Constr. Co.*, 309 U.S. 18 (1940); *Myers v. United States*, 323 F.2d 580 (9th Cir. 1963); *Harris v. United States*, 205 F.2d 765 (10th Cir. 1953); *Green v. ICI Am., Inc.*, 362 F. Supp. 1263 (E.D. Tenn. 1973); *Dolphin Gardens, Inc. v. United States*, 243 F. Supp. 824 (D. Conn. 1965).

1. ORIGIN OF, AND LIMITATIONS ON, THE DOCTRINE OF SOVEREIGN IMMUNITY

The government's immunity from tort liability originated with the belief that "the king can do no wrong."¹⁰⁷ With the democratization of politics, sovereign immunity assured that statesmen could govern without constant harrassment from disapproving members of the public. As explained by one court:

If [a public official] is to do the job of governing well, then there is something to be said for withholding the threat of answerability in damages for at least some of the actions and decisions which governing necessarily entails. He who rules must make choices among competing courses of action and in the face of conflicting considerations of policy. The capacity and the incentive to govern effectively are arguably not enhanced by the prospect of being sued by those citizens who may be adversely affected by the choice eventually made. Thus it has been thought wise to sweep this restrictive cloud from the horizon and to let those responsible for the conduct of public affairs calculate their courses of action free of this intimidating influence.¹⁰⁸

The Supreme Court of the United States traditionally was reluctant to subject the federal government to suits by disgruntled citizens.¹⁰⁹ The Court begrudgingly conceded in 1824, however, that the government could be sued with its consent.¹¹⁰ What the Justices would not permit,¹¹¹ the Congress sanctioned in 1946 by passing the Federal Tort Claims Act (the "Act").¹¹² The Act waived the United States government's sovereign immunity for the torts of its employees by granting the federal district courts juris-

107. *Dolphin Gardens, Inc. v. United States*, 243 F. Supp. 824, 825 (D. Conn. 1965) (quoting *Elgin v. District of Columbia*, 337 F.2d 152, 154 (D.C. Cir. 1964)). A corollary principle is that government susceptibility to tort liability is incongruous with principles of sovereignty. See Jaffe, *Suits Against Governments and Officers: Sovereign Immunity*, 77 HARV. L. REV. 1 (1963).

108. *Dolphin Gardens, Inc. v. United States*, 243 F. Supp. 824, 825-26 (D. Conn. 1965) (quoting *Elgin v. District of Columbia*, 337 F.2d 152, 154 (D.C. Cir. 1964)).

109. See, e.g., *Kawananakoa v. Polyblank*, 205 U.S. 349, 353 (1907); *United States v. Lee*, 106 U.S. 196, 207 (1882); *Hill v. United States*, 50 U.S. (9 How.) 386, 389 (1850); *Cohens v. Virginia*, 19 U.S. (6 Wheat.) 264, 411-12 (1821).

110. *Osborn v. Bank of the United States*, 22 U.S. (9 Wheat.) 738 (1824).

111. See generally 30 GEO. L.J. 462 (1942) (examination of lawsuits against the government before the passage of the Federal Tort Claims Act).

112. Pub. L. No. 601, 60 Stat. 842 (1946) (codified as amended at 28 U.S.C. §§ 1291, 1346, 1402, 1504, 2110, 2401, 2404, 2411-2412, 2671-2680 (1976 & Supp. IV 1980)). Congress passed the Act to relieve itself of the burdensome necessity of passing thousands of private bills to satisfy claims, and to eliminate the unfairness of denying injured private citizens recovery against the government. H.R. REP. NO. 1287, 79th Cong., 1st Sess. 2 (1945).

diction over suits for damages "caused by the negligent or wrongful act or omission of any employee of the Government."¹¹³ The Act also contains certain limits on the United States' tort liability, three of which are relevant to this Comment.

First, section 2671 of the Act provides that the term "Federal agency" as used in the Act's jurisdiction-granting provision "does not include any contractor with the United States."¹¹⁴ Because the employees for whose acts the government accepts liability under the doctrine of respondeat superior must be employees of a "federal agency," this definition precludes the government's liability for the torts of an independent government contractor. Second, section 1346(b) of the Act limits the liability of the United States to the "negligent or wrongful" acts of its employees.¹¹⁵ Courts have interpreted this language to preclude government liability based on strict liability in tort.¹¹⁶ Finally, section 2680(a) of the Act provides that the United States' waiver of sovereign immunity does not extend to claims arising from a government employee's performance of a "discretionary function or duty."¹¹⁷

As these limitations on the scope of the Act illustrate, the government does not protect the contractor who negligently performs

113. 28 U.S.C. § 1346(b) (1976).

114. *Id.* § 2671. Section 2671 provides:

As used in this chapter and sections 1346(b) and 2401(b) of this title, the term "Federal agency" includes the executive departments, the military departments, independent establishments of the United States, and corporations primarily acting as instrumentalities or agencies of the United States, but does not include any contractor with the United States.

"Employee of the government" includes officers or employees of any federal agency, members of the military or naval forces of the United States, and persons acting on behalf of a federal agency in an official capacity, temporarily or permanently in the service of the United States, whether with or without compensation.

Id. (emphasis added); see also *Logue v. United States*, 412 U.S. 521, 526-27 (1973).

115. 28 U.S.C. § 1346(b) (1976).

116. See, e.g., *Laird v. Nelms*, 406 U.S. 797 (1972); see also *Dalehite v. United States*, 346 U.S. 15, 45 (1953) (United States assumes no liability from its "ownership of an 'inherently dangerous commodity' or property, or [from] engaging in an 'extrahazardous' activity"); *infra* note 130 and accompanying text. *Contra* Peck, *Absolute Liability and the Federal Tort Claims Act*, 9 STAN. L. REV. 433 (1957). The United States still may be liable for its own employees' independent acts of negligence that occur in connection with a government contractor's work. *Logue v. United States*, 412 U.S. 521, 530-32 (1973).

117. 28 U.S.C. § 2680(a) (1976) provides that the government's assumption of liability under the Act does not apply to "[a]ny claim . . . based upon the exercise or performance or the failure to exercise or perform a discretionary function or duty on the part of a federal agency or an employee of the Government, whether or not the discretion involved be abused." For a discussion of section 2680(a), see Harris & Schnepfer, *Federal Tort Claims Act: Discretionary Function Exception Revisited*, 31 U. MIAMI L. REV. 161 (1976).

the government's orders.¹¹⁸ Nor does the doctrine of sovereign immunity protect a contractor from liability for actions that are not authorized by,¹¹⁹ or necessary to,¹²⁰ the fulfillment of the contract. In a typical government contract scenario, the United States requests that the contractor build a weapon or product with certain capabilities. If the contract grants the government contractor the discretionary authority to devise a design or manufacturing scheme to produce the weapon or product, then the contractor must exercise that discretion nonnegligently. In this situation,

[w]here the act or failure to act, which causes an injury [to a third person] is one which the [government] contractor was employed to do and *the injury results not from the negligent manner of doing the work, but from the performance thereof* . . . , the contractor is entitled to share the immunity from liability which the public enjoys¹²¹

2. DEFINITION OF A DISCRETIONARY FUNCTION OR DUTY

Assuming that the manufacturer has performed nonnegligently, the inquiry then shifts to the nature of the government's decision to order the procurement of the product. In this context, the fundamental question in determining whether the government's immunity is extended to a contractor is whether the contractor's activities are pursuant to a government discretionary decision. The Supreme Court of the United States defined government discretionary functions or duties in *Dalehite v. United States*.¹²²

After the Second World War, Germany, Japan, and Korea lacked the capacity to feed their people; hunger threatened to produce internal unrest. To quell potential Korean protests and sustain its armed forces, the United States War Department con-

118. See, e.g., *Ross v. United States*, 640 F.2d 511, 519 (5th Cir. 1981); *In re Franklin Nat'l Bank Sec. Litig.*, 445 F. Supp. 723, 735 (E.D.N.Y. 1978); see also *Merritt, Chapman & Scott Corp. v. Guy F. Atkinson Co.*, 295 F.2d 14 (9th Cir. 1961); *York Cove Corp. v. United States*, 317 F. Supp. 799, 809 (E.D. Va. 1970); *supra* notes 25-34 and accompanying text; cf. H.R. REP. NO. 1287, 79th Cong., 1st Sess. 2, 5 (1945) (Tort Claims Act does not seek to impose liability on the government "where no negligence on the part of any Government agent is shown.").

119. *Yearsley v. W.A. Ross Constr. Co.*, 309 U.S. 18, 20-21 (1940).

120. *Converse v. Portsmouth Cotton Oil Ref. Corp.*, 281 F. 981, 984 (4th Cir.), *cert. denied*, 260 U.S. 724 (1922); *Schrader v. Hercules, Inc.*, 489 F. Supp. 159 (W.D. Va. 1980).

121. *Green v. ICI Am., Inc.*, 362 F. Supp. 1263, 1265 (E.D. Tenn. 1973) (emphasis added), *quoted in Agent Orange I*, 506 F. Supp. at 793; see *Converse v. Portsmouth Cotton Oil Ref. Corp.*, 281 F. 981, 984 (4th Cir.), *cert. denied*, 260 U.S. 724 (1922).

122. 346 U.S. 15, 34-36 (1953).

tracted for the manufacture of fertilizer from surplus explosive compounds,¹²³ detailing the specifications for production, packaging, labeling, and shipping.¹²⁴ A cargo ship holding the finished fertilizer and other explosives exploded while in port, killing many people and razing much of the port city. The subsequent actions for damages, brought by persons injured in the explosion, tested the feasibility of suing the United States for personal and property injuries sustained as a result of a government wartime program. Although the district court awarded damages to the plaintiffs, the United States Court of Appeals for the Fifth Circuit reversed, holding that the United States could not be sued for injuries indirectly caused by a discretionary act of the War Department.¹²⁵

The Supreme Court of the United States affirmed the Fifth Circuit's decision, holding that section 2680(a) of the Federal Tort Claims Act barred claims arising from the explosion because the decision to manufacture the fertilizer and the specifications for its production and handling "were all responsibly made at a *planning* rather than *operational* level and involved considerations . . . important to the practicability of the Government's fertilizer program."¹²⁶ The Court broadly defined a discretionary function as an action requiring a "policy judgment and decision."¹²⁷ Thus, *Dalehite* established a distinction between those acts of the government that are "discretionary" and those that are "operational" and therefore actionable under the Federal Tort Claims Act.¹²⁸

The import of *Dalehite*, and its relevance to the extended immunity doctrine, was addressed in *Dolphin Gardens, Inc. v. United States*.¹²⁹ In *Dolphin Gardens* the government employed a contractor to dredge a river channel. The government ordered the

123. *Id.* at 18-21.

124. *Id.* at 20, 39-40.

125. *In re Texas City Disaster Litig.*, 197 F.2d 771, 778-81 (5th Cir. 1952), *aff'd sub nom.* *Dalehite v. United States*, 346 U.S. 15 (1953).

126. *Dalehite*, 346 U.S. at 42 (emphasis added). In his dissenting opinion, Justice Jackson reached a different conclusion:

The Government's negligence here was not in policy decisions of a regulatory or governmental nature, but involved actions akin to those of a private manufacturer, contractor, or shipper. Reading the discretionary exception as we do, in a way both workable and faithful to legislative intent, we would hold that the Government was liable under these circumstances.

Id. at 60 (Jackson, J., dissenting).

127. 346 U.S. at 36.

128. The Court further explained that under the Federal Tort Claims Act, the United States could not be held strictly liable. Rather, the Act only applied to a "'negligent or wrongful act or omission' of [a government] employee." *Id.* at 44-45.

129. 243 F. Supp. 824 (D. Conn. 1965).

contractor to deposit the dredged material onto a shoreside vacant lot near the plaintiff's land. Ultimately, fumes emanating from this depository reacted with the exterior surface of the plaintiff's buildings and caused severe damage. The plaintiff's lessee sued both the government and the contractor for damages. The court granted the government's motion for summary judgment because "[t]he selection and approval of the [deposit] site . . . and the decision not to take any precautions concerning the possible escape of fumes are . . . within the scope of 'discretionary functions'"¹³⁰ The contractor also successfully moved to dismiss. The court reasoned that in failing to provide warnings about the subsequent escape of fumes, the contractor was carrying out "a decision which rested with the Government."¹³¹

In the aftermath of *Dalehite* and *Dolphin Gardens*, courts have construed more narrowly the definition of a "discretionary function or duty." For example, although the Coast Guard's decision to emplace a lighthouse is discretionary, its maintenance once the device is in place is operational;¹³² the Air Force's decision to commission the construction of airplanes is discretionary, but not the acceptance of the aircraft with a negligently designed pilot's ejection seat.¹³³ Although the decision to order nuclear testing,¹³⁴ to sell asbestos in unmarked crates to knowledgeable buyers,¹³⁵ to approve a drug as safe for use,¹³⁶ to contract out the conduct of nuclear research projects,¹³⁷ or to spray herbicide on government land¹³⁸ is discretionary, it is conceivable that an order not to issue

130. *Id.* at 826 (relying on *Dalehite*, 346 U.S. 15 (1953)). An affidavit filed by the naval officer in charge of the dredging project revealed that (1) the government had conducted an exhaustive search for feasible sites and had concluded that the selected site was the only one of acceptable size available, and (2) the Navy had planned to use the river shortly thereafter for its nuclear submarines and therefore, placed the dredging project on a "high priority." *Id.*

131. *Id.* at 827.

132. See *Indian Towing Co. v. United States*, 350 U.S. 61, 69 (1955); cf. *Miller v. United States*, 480 F. Supp. 612 (E.D. Mich. 1979) (government liable for negligent manner in which its agents operated flood gates).

133. See *Moyer v. Martin Marietta Corp.*, 481 F.2d 585, 598 (5th Cir. 1973).

134. See *Bartholomae Corp. v. United States*, 135 F. Supp. 651 (S.D. Cal. 1955), *aff'd*, 253 F.2d 716 (9th Cir. 1957); see also *Jaffe v. United States*, 663 F.2d 1226 (3d Cir. 1981) (former serviceman who claimed that government intentionally exposed him to nuclear test radiation did not state actionable claim against government).

135. See *Stewart v. United States*, 486 F. Supp. 178, 184-85 (C.D. Ill. 1980).

136. See *Gelley v. Astra Pharmaceutical Prods., Inc.*, 466 F. Supp. 182, 184-86 (D. Minn.), *aff'd*, 610 F.2d 558, 563 (8th Cir. 1979).

137. See *Bramer v. United States*, 595 F.2d 1141, 1143-44 (9th Cir. 1979).

138. See *Green v. United States*, 629 F.2d 581, 585-86 (9th Cir. 1980); *Harris v. United States*, 205 F.2d 765, 766-67 (10th Cir. 1953).

warnings about the hazards of exposure from these activities is operational.¹³⁹

The numerous interpretations¹⁴⁰ of the *Dalehite* discretionary doctrine indicate that the distinction between a "discretionary" or an "operational" decision is difficult to ascertain precisely and apply consistently under the extended immunity theory.¹⁴¹ *Dolphin Gardens* offers one methodology for determining whether the government extends its immunity to a contractor; specifically, if the third party's injury is "the result of an affirmative decision by the government to act or not to act," then a contractor is immune from liability because it is acting pursuant to the government's discretionary authority.¹⁴²

But the application of the "policy" standard in *Dolphin Gardens*, or the planning-operational dichotomy in *Dalehite*, lacks meaning without reference to section 2680(a) of the Federal Tort

139. See, e.g., *Broudy v. United States*, 661 F.2d 125, 128-29 (9th Cir. 1981) (former serviceman stated claim that government failed to warn about or monitor possible post-discharge injuries arising from in-service exposure to nuclear test radiation); *Barron v. United States*, 473 F. Supp. 1077, 1084 (D. Hawaii 1979) (Navy failed to take steps beyond issuing warnings to enforce compliance with contractual safety requirements); cf. *Thornwell v. United States*, 471 F. Supp. 344, 347-53 (D.D.C. 1979) (*Feres* doctrine bars suit by veteran who had been surreptitiously drugged with LSD and interrogated as part of Army investigation into theft of classified documents; veteran could recover for Army's post-discharge negligence in failing to provide proper follow-up care).

140. Other courts have attempted to define a "discretionary function" by establishing a dichotomy between rule application and rulemaking, see, e.g., *Hendry v. United States*, 418 F.2d 774 (2d Cir. 1969), or governmental activity and nongovernmental activity. But see *Indian Towing Co. v. United States*, 350 U.S. 61 (1955).

141. Some courts have attempted to lend some degree of predictability to the determination of what is or is not a "discretionary function." For example, the Washington Supreme Court formulated a four-pronged test to identify discretionary functions in *Evangelical United Brethren Church v. State*, 67 Wash. 2d 246, 251, 407 P.2d 440, 445 (1965):

(1) Does the challenged act, omission, or decision necessarily involve a basic governmental policy, program, or objective? (2) Is the questioned act, omission, or decision essential to the realization or accomplishment of that policy, program, or objective as opposed to one which would not change the course or direction of the policy, program, or objective? (3) Does the act, omission, or decision require the exercise of basic policy evaluation, judgment, and expertise on the part of the governmental agency involved? (4) Does the governmental agency involved possess the requisite constitutional, statutory, or lawful authority and duty to do or make the challenged act, omission, or decision? If these preliminary questions can be clearly and unequivocally answered in the affirmative, then the challenged act, omission, or decision can, with a reasonable degree of assurance, be classified as a discretionary governmental process and nontortious, regardless of its un wisdom. If, however, one or more of the questions call for or suggest a negative answer, then further inquiry may well become necessary, depending upon the facts and circumstances involved.

142. *Dolphin Gardens*, 243 F. Supp. at 827. Nonetheless, the contractor will be liable if he performs his duties negligently. *Id.*

Claims Act and its underlying rationale. The exception carved out by section 2680(a) safeguards the separation of powers by limiting judicial interference with decisionmaking properly exercised by other branches of the government.¹⁴³ Congress included this provision in the Act because it did not want to allow the courts to substitute their judgment for that of a government official in determining the "propriety" of a discretionary act.¹⁴⁴ It feared that judicial second-guessing of government policy decisions would intimidate officials and ultimately affect their judgment, particularly if, as a result of the decision, the government was potentially liable to an unknown number of people.¹⁴⁵ Congress viewed legal intervention of this sort as tantamount to judicial control over administrative action and a serious handicap to efficient government operation.¹⁴⁶

The Supreme Court in *Dalehite* accepted this rationale; it contrasted the executive's discretion to act according to its best judgment on matters of policy with judgments made "within the limits of positive rules of law subject to judicial review."¹⁴⁷ These rules are absent "when the question is not negligence but social wisdom, not due care but political practicability, not reasonableness but economic expediency. Tort law simply furnishes an inadequate crucible for testing the merits of social, political, or economic decisions."¹⁴⁸

Some areas of government activity, by their nature, require courts to weigh social, political, and economic factors. For example, courts routinely find that discretion is involved in the promulgation¹⁴⁹ or enforcement¹⁵⁰ of regulations, the award of government

143. *Payton v. United States*, 636 F.2d 132, 143 & n.25 (5th Cir. 1981) ("The crux of the concept embodied in the discretionary function exemption is that of the separation of powers.") (relying on legislative history of Federal Tort Claims Act); *Medley v. United States*, 480 F. Supp. 1005, 1008 (M.D. Ala. 1979).

144. *Tort Claims, Hearings Before Comm. on the Judiciary on H.R. 5373 and H.R. 6463*, 77th Cong., 2d Sess. 44 (1942) (discussions foreshadowing enactment of Federal Tort Claims Act).

145. See *supra* text accompanying note 108.

146. *United States v. Muniz*, 374 U.S. 150, 163 (1963); see *supra* note 108.

147. *Dalehite*, 346 U.S. 15, 34 (1953).

148. *Blessing v. United States*, 447 F. Supp. 1160, 1170 (E.D. Pa. 1978).

149. *E.g.*, *Dalehite*, 346 U.S. at 27; *First Nat'l Bank v. United States*, 552 F.2d 370 (10th Cir.), *cert. denied*, 434 U.S. 835 (1977); *Miller v. United States*, 522 F.2d 386 (6th Cir. 1975); *Loge v. United States*, 494 F. Supp. 883, 887-88 (W.D. Ark. 1980).

150. *E.g.*, *Emch v. United States*, 630 F.2d 523, 527 n.24, 528 (7th Cir. 1980) (regulatory and statutory supervision or monitoring of bank entities); *Barton v. United States*, 609 F.2d 977, 980 (10th Cir. 1979) (Bureau of Land Management order to discontinue grazing on public lands); *Bernitsky v. United States*, 463 F. Supp. 1121 (E.D. Pa. 1979) (federal mine

contracts,¹⁵¹ the direction of foreign affairs,¹⁵² and the determination of military tactics.¹⁵³ Courts do not presuppose, however, that in making decisions in these areas, the government is guided by a fixed set of rules delineating right from wrong. The reason for the courts' reluctance to second-guess the government's choice in discretionary matters, simply stated, is that for a decision to be truly "discretionary," the government must have the *freedom* to judge or choose from a variety of options. The ultimate decision will affect groups within the population differently; some will view the decision as improper while others will applaud the choice.¹⁵⁴ Because reasonable minds can differ as to the correctness of the decision, tort law elects not to evaluate the decision, but rather to examine its execution, so that judicial redress does not jeopardize "the quality and efficiency of government itself."¹⁵⁵ Measuring a discretionary decision by a judicial standard of conduct limits the government's freedom to make decisions. Take away this flexibility, and the job of decisionmaking tacitly becomes the responsibility of the courts and not the people's elected representatives. This, of course, violates the very principles upon which this country was founded.¹⁵⁶

Translated into practical terms, the distinction between discretionary and operational decisions means that the decision not to order a mechanical locking device on a dump truck,¹⁵⁷ or a canopy on a bulldozer,¹⁵⁸ is reviewable because there exists a fixed standard for measuring the merits of these decisions, and judicial review would not usurp the government's discretion in these areas. Alternatively, the Army's decision to order jeeps without seatbelts is not subject to judicial scrutiny because the courts lack the requi-

safety inspector's decision barring access to coal mine), *aff'd*, 620 F.2d 948 (3d Cir.), *cert. denied*, 449 U.S. 870 (1980).

151. *E.g.*, *Myers & Myers, Inc. v. United States Postal Serv.*, 527 F.2d 1252 (2d Cir. 1975).

152. *E.g.*, *Dames & Moore v. Regan*, 453 U.S. 654 (1981).

153. *E.g.*, *Huslander v. United States*, 234 F. Supp. 1004 (W.D.N.Y. 1964) (sonic boom from supersonic flight); *Barroll v. United States*, 135 F. Supp. 441 (D. Md. 1956) (choice of where to test cannons); *Bartholomae Corp. v. United States*, 135 F. Supp. 651 (S.D. Cal. 1955) (nuclear testing), *aff'd*, 253 F.2d 716 (9th Cir. 1957).

154. See *THE FEDERALIST* No. 10, *supra* note 87, at 106-08; Gellhorn & Schenck, *supra* note 66, at 739.

155. *Payton v. United States*, 636 F.2d 132, 143 (5th Cir. 1981) (quoting *Elgin v. District of Columbia*, 337 F.2d 152, 154-55 (D.C. Cir. 1964)).

156. See *supra* note 87.

157. See *Medley v. United States*, 480 F. Supp. 1005, 1009 (M.D. Ala. 1979).

158. See *United States v. DeCamp*, 478 F.2d 1188 (9th Cir. 1973).

site expertise and legal standards to judge the correctness of the action.¹⁵⁹ The district court in *Agent Orange II* concurred:

Courts should not require suppliers of ordnance to question the military's needs or specifications for weapons during war-time. Whether to use a particular weapon that creates a risk to third parties, whether the risk could be avoided at additional cost, whether the weapon could be made safer if a longer manufacturing time were allowed, indeed, whether the weapon involves any risk at all, are all proper concerns of the military which selects, buys and uses the weapon. But they are not sources of liability which should be thrust upon a supplier, nor are they decisions that are properly made by a court.¹⁶⁰

If courts refuse to respect government immunization of contractors, then the government is forced to insure the contractor, order a battery of tests to determine whether the product is safe (perhaps at a time when speed is critical), or cancel the project. The first option would provide relief to third parties injured by a defectively manufactured product, but only at great expense to the government. If one assumes that the government seeks to manage its operations—including a military effort—in the best interests of the country, then the second and third options are inadvisable because they require the country's interest to be placed second to individual protection (perhaps at a time of national need). Restrained by the costs, time, or military needs of war, the government must use items that are known to be safe, but which may not be as suitable or efficacious as another product. In this sense, the imposition of products liability impairs the government's discretionary authority to manage the affairs of the nation in peacetime

159. *Sanner v. Ford Motor Co.*, 144 N.J. Super. 1, 364 A.2d 43 (Law Div. 1976), *aff'd*, 154 N.J. Super. 407, 381 A.2d 805 (App. Div. 1977), *certification denied*, 75 N.J. 616, 394 A.2d 846 (1978).

Compare the government's decision not to order a locking device on a dump truck, *Medley v. United States*, 480 F. Supp. 1005 (M.D. Ala. 1979), with the government's decision in *Sanner* to order jeeps without seatbelts. In the former case, the government offered no evidence that it omitted to include a safety device in its design of the dump truck as a result of a conscious policy decision. In the latter, the Army's decision took into account the ability of the soldiers either to escape quickly from the jeep in the event of enemy attack or to respond quickly in kind with their own weapons. *See supra* note 52. The decision not to order brakes for a truck did not involve considerations of practicability or social policy; the decision is easily evaluated by conventional notions of reasonableness. The Army's decision not to order seatbelts for its jeeps involved considerations of feasibility and strategy, both inextricably linked with military policy, and neither measurable by the rules of law. All of this assumes that there are some government decisions that are really guided by judicial standards of right and wrong, even though they may tangentially take into account policy.

160. *Agent Orange II*, 534 F. Supp. at 1054.

or wartime—products liability limits government options. This is particularly true in times of war, as explained in *Sanner v. Ford Motor Co.*:

To impose liability on a governmental contractor who strictly complies with the plans and specifications provided to it by the Army . . . would seriously impair the governments [sic] ability to formulate policy and make judgments pursuant to its war powers. The Government is the agency charged with the responsibility of deciding the nature and type of military equipment that best suits its needs, not a manufacturer¹⁶¹

3. A HISTORICAL PERSPECTIVE ON GOVERNMENT DISCRETIONARY AUTHORITY

History documents the importance of unimpaired government discretion in wartime.¹⁶² Beginning in 1942, scientists participating in the Manhattan Project¹⁶³ worked to harness the atom in a bomb.¹⁶⁴ Although they conducted one test in the New Mexico de-

161. *Sanner*, 144 N.J. Super. at 9, 364 A.2d at 47. Holding a contractor liable even though it followed the contract specifications might suggest that the government acted improperly in commissioning the work. These doubts about the government's management of a program—particularly a military activity—are precisely the type of second-guessing that *Dalehite* seeks to prevent. Presumably, the government manages the war effort in a manner consistent with the best interests of all concerned. Once the government becomes reluctant to solicit contractors to manufacture ordnance pursuant to contracts of varying degrees of specificity, its management capability suffers. See *Jefferson v. United States*, 178 F.2d 518, 520 (4th Cir. 1949), *aff'd sub nom. Feres v. United States*, 340 U.S. 135 (1950).

162. Congress has the power to take actions during wartime that might otherwise be unconstitutional. U.S. CONST. art. I, § 8, cls. 1, 11, 12, 18. This is particularly true with respect to commercial rights. See *Lichter v. United States*, 334 U.S. 742, 754 (1948) (upholding recovery of excess profits under Renegotiation Act); *Woods v. Cloyd W. Miller Co.*, 333 U.S. 138, 144 (1948) (upholding postwar rent control); *United States v. Bethlehem Steel Corp.*, 315 U.S. 289, 305 (1941) (upholding Congress's power to compel businesses to cooperate with the war effort). Although courts are less willing to sacrifice private rights for the war effort, their willingness to do so increases in proportion to the perceived threat to national security. Compare *Dennis v. United States*, 341 U.S. 494 (1951) (upholding conviction of Communist Party leaders for advocating the overthrow of the American government) and *Knauf v. Shaughnessy*, 338 U.S. 537 (1950) (refusing to reconsider decision preventing Czechoslovakian war bride from entering the United States) and *Korematsu v. United States*, 323 U.S. 214 (1944) (order excluding persons of Japanese ancestry from West Coast military area during World War II held constitutional) and *Ex parte Quirin*, 317 U.S. 1 (1942) (upholding trial of Nazi saboteurs before a military commission) with *Keegan v. United States*, 325 U.S. 478 (1945) (reversing conspiracy convictions of German-American Bund members) and *State Bd. of Educ. v. Barnette*, 319 U.S. 624 (1943) (public schools cannot compel Jehovah's Witnesses to salute American flag).

163. In 1942 the United States Army Corps of Engineers established the Manhattan Project to administer the various scientific and industrial groups responsible for atomic research. See SCIENTIFIC AMERICAN, ARMS CONTROL 3 (1973).

164. In 1938 German scientists discovered nuclear fission. Within a year Albert Ein-

sert before dropping the bomb on Japan,¹⁶⁶ President Truman and his advisers were unsure whether the bomb would work in combat.¹⁶⁶ Some of his advisers lobbied for a noncombat demonstration of the bomb's potency rather than its use against Japan.¹⁶⁷ Although uncertain of the result, the United States proceeded to drop the atomic bomb on Japan because of the necessities of military strategy.¹⁶⁸

Although the consequences of failure were less significant, Agent Orange's background and use is not very different. The French had unsuccessfully defended Vietnam against insurgents for many years, and their departure from the region left a political vacuum that the United States feared would be filled by the Communists.¹⁶⁹ To prevent an unfriendly government from assuming power in South Vietnam, President Kennedy in 1961 ordered 16,732 American military advisers to the region to assist the South Vietnamese Army in its struggle with the enemy.¹⁷⁰ Matched against an opponent that resorted to guerrilla tactics, the United States military elected within a year to use Agent Orange to take away the enemy's sanctuary: the dense forests.¹⁷¹ Given the inability of South Vietnam to defend itself,¹⁷² and the political inadvisability of deploying American troops in the area,¹⁷³ the use of the herbicide was an acceptable option. For these reasons, the military

stein recognized the tremendous military possibilities inherent in the new discovery and sent a letter to President Roosevelt urging the United States to start a nuclear weapons program. Following a favorable report by the National Academy of Sciences and information from the British concerning their work in the field, the United States decided to conduct an "all out" effort to build an atomic bomb on December 6, 1941, the day before the Japanese bombed Pearl Harbor. *Id.* In December 1942, Enrico Fermi and his co-workers achieved the first nuclear chain reaction. Three years passed, however, before the scientists and engineers could drop a bomb in combat. *Id.* at 5.

165. M. AMRINE, *THE GREAT DECISION* 149-51, 164-66 (1959); R. DONOVAN, *CONFLICT AND CRISIS* 72-73 (1977).

166. M. AMRINE, *supra* note 165, at 161; R. DONOVAN, *supra* note 165, at 71.

167. R. DONOVAN, *supra* note 165, at 66-71.

168. *Id.* at 66, 70, 97.

169. T. WHITE, *IN SEARCH OF HISTORY* 332, 345-46 (1978).

170. *Id.* at 530.

171. See S. HERSH, *CHEMICAL AND BIOLOGICAL WARFARE* 144-87 (1968); A.V. THOMAS & A.J. THOMAS, JR., *LEGAL LIMITS ON THE USE OF CHEMICAL AND BIOLOGICAL WEAPONS* 150, 294 n.102 (1970); D'Amato, Gould & Woods, *War Crimes and Vietnam: The "Nuremberg Defense" and the Military Service Resister*, 57 CALIF. L. REV. 1055, 1095-96 (1969); O'Brien, *The Law of War, Command Responsibility and Vietnam*, 60 GEO. L.J. 605, 644 (1972).

172. The United States elected to withdraw its troops from Vietnam—a program known as "Vietnamization"—because of the political advantages, not the military prowess of the South Vietnamese Army. H. KISSINGER, *WHITE HOUSE YEARS* 271-77 (1979).

173. T. WHITE, *supra* note 169, at 346.

ordered the manufacture of large quantities of Agent Orange, a chemical whose physical properties and physiological effects were relatively unknown.¹⁷⁴

Although it is now clear that the chemical companies' willingness to produce Agent Orange did not affect the outcome of the Vietnam War, the same cannot be said for those who participated in the Manhattan Project. Unfortunately, military prognosticators cannot foretell whether a weapon will influence the outcome of a conflict. What the Manhattan Project and the history of Agent Orange have in common, however, is that when military necessity requires, the government will turn to a contractor for assistance and quick results. A manufacturer's unwillingness to participate or be innovative could present serious limitations on American military strategy and emasculate the government's discretionary authority.

Immunizing the government contractor from products liability during wartime does not mean that conduct that would amount to a tort on the part of nonmilitary manufacturers is not still tortious in character. Indeed, today the arms race between the United States and the Soviet Union, a war of only words and numbers, has produced a permanent munitions industry whose conduct should be monitored by tort law; costs, time, and quality control are manageable and can be reasonably reflected in the weapon's price.¹⁷⁵ But during wartime, when the government requires the production of a weapon quickly at the expense of quality control, the contractor deserves immunity from liability to ensure that it remains a

174. During World War II, the Army tested two herbicides to determine their effectiveness in limiting the enemy's crop production. These two phenoxy compounds included 2, 4-D (2, 4-dichlorophenoxy acetic acid) and 2, 4, 5-T (2, 4, 5-trichlorophenoxy acetic acid). Agent Orange, named for the orange stripe around its canister, was a mixture of these two chemicals. Following the war, the world agricultural community used herbicides to control weeds. Spurred on by the successful application of herbicides during the 1950's, the military resumed testing of the chemicals to ascertain their military usefulness. Similar success in this limited operation prompted the United States government to begin aerial spraying of the herbicides in Vietnam in early 1962. The military defoliated nearly ten per cent of South Vietnam, using a solution of Agent Orange that was ten times stronger than that allowed by the United States government for domestic agricultural use at that time.

The Department of Defense reviewed annually the efficacy of using Agent Orange in Vietnam. A 1967 study commissioned by the Department concluded that Agent Orange, while lethal to plants, probably did not pose any problems to humans. This view remained unchanged until a 1970 Department of Agriculture study revealed that Agent Orange caused birth defects among laboratory animals. In 1970, following this study and other reports linking 2,4,5-T to human birth defects, the Department of Defense suspended all use of Agent Orange in Vietnam. See Meyers, *supra* note 3, at 160-67; Commentary, *supra* note 3, at 138-49; Comment, *supra* note 2, at 49-55.

175. See Dix & Riddell, *supra* note 72; Hudock, *supra* note 72; Kerr, *supra* note 72.

part of the war effort.

C. *The Unique Policy Considerations of Wartime*

1. THE EXIGENCIES OF WARTIME AND INDIVIDUAL RIGHTS

Courts that criticize the application of the government contract defense in products liability cases discount the importance of both the government's specifications and the exigencies of war. They contend that "the public interest in human life and health" should be of paramount concern because the contractor operates only for his own benefit.¹⁷⁶ One commentator suggests that the only way to make the manufacturer "act in the public interest [is] by a strict accounting under products liability law."¹⁷⁷

Admittedly, the government contractor's actions are motivated by private, profitmaking concerns. But the supporters of traditional products liability fail to recognize that absent the government actually "drafting" a business for the war effort, free market forces still remain in wartime to govern contractual relationships.¹⁷⁸ To suppose that a manufacturer would support the war effort by undertaking a project that threatens financial ruin because of products liability defies logic.

On an emotional level, however, ordering a soldier to risk his life in war and requiring a contractor merely to limit its profits (if it elects to contract with the government) appears unjust. Indeed, if the soldier has the duty to serve, then in fairness he should have the corresponding right to hold a manufacturer accountable for injuries caused by its product. But this Hohfeldian scheme is not legally justified. When the government calls its citizens to arms,¹⁷⁹

176. *Foster v. Day & Zimmermann, Inc.*, 502 F.2d 867, 871 (8th Cir. 1974); see *Challoner v. Day & Zimmermann, Inc.*, 512 F.2d 77, 84 (5th Cir.), *vacated on other grounds*, 423 U.S. 3 (1975); cf. *Lenherr v. NRM Corp.*, 504 F. Supp. 165, 173 (D. Kan. 1980) (design of potentially dangerous machine by private manufacturer).

177. Davis, *supra* note 8, at 50.

178. An efficient industrial complex is essential to a properly functioning military force. See *supra* note 75.

179. The government has the right to expect its citizens to honor their duty to serve the country. In exchange for the right to enjoy the nation's resources, to participate in its decisions, and to earn a comfortable wage, the citizenry is obligated to serve the government in time of war. M. WALZER, *OBLIGATIONS* 82 (1970); see also *Selective Draft Law Cases*, 245 U.S. 366, 378 (1918) ("It may not be doubted that the very conception of a just government and its duty to the citizen includes the reciprocal obligation of the citizen to render military service in case of need and the right to compel it."). The citizen's duty, although in part moral, is made legal by the draft. See *Lichter v. United States*, 334 U.S. 742, 763-66 (1948); *Selective Draft Law Cases*, 245 U.S. at 368-69; *United States v. Sugar*, 243 F. 423, 436-37 (E.D. Mich. 1917).

as is its discretionary right,¹⁸⁰ it presumably is acting in the national interest. Under these circumstances, individual sacrifice sometimes is necessary for the good of the country.¹⁸¹ A person who elects to enlist or is drafted to serve in the armed forces has little choice other than to trust the government to act in the best interests of the country. Thus, when the government orders the manufacture of a weapon that might pose a danger to its own soldiers, the presumption is that the decision is in the national interest.

The above analysis presupposes that for purposes of the government contract defense, the United States is embroiled in a war. Indeed, the exigencies of war and the attendant difficulties of quick production and quality control are the very factors that distinguish the legal liability of a wartime contractor from his peacetime counterpart. The government contract defense is valid, although slightly more problematic, when the government is engaged in an undeclared war or military exercise. The defense is more difficult to accept because the country lacks the sense of urgency that characterizes a call to arms.¹⁸² Relevant to the government contract defense, however, is not the perceived national threat, but the need for government discretion to coordinate *any* military exercise and the limitations imposed on a contractor's ability to police his work and control his costs. Taken to its logical conclusion, this analysis suggests that a contractor manufacturing munitions for the government in peacetime, although not faced with the same production problems as a wartime contractor, may escape products liability.

2. PRODUCTS LIABILITY AND THE RULES OF WAR

Once the threat of products liability alters the government decision to deploy a weapon, tort law, rather than government judgment, shapes military strategy. This unilateral restriction on the

180. See *supra* notes 152-53 and accompanying text.

181. Although the government has broad discretionary powers, it still must act in the best interest of the citizenry. Occasionally, citizens may suffer at the expense of a government decision. According to one school of thought, if that decision affects the nation's war-time posture, then some sacrifice of the citizenry is expected because what is best for the citizen in war probably is what is best for the state. M. WALZER, *supra* note 179, at 82.

182. The sense of national urgency that existed during World War II was not similar to the attitude extant during the Vietnam War. In the 1940's, the entire nation rallied to support the war effort; in contrast to this sense of national unity, there was considerable public opposition to the American involvement in the Vietnam War (although more than half of the public approved of the war until 1966). 3 THE GALLUP POLL 2006 (1972).

use of weapons is philosophically inconsistent with the rules of war.

The annals of history are replete with examples of man's attempts to limit, as well as to rationalize, the devastation of war. During the Middle Ages, nations banned certain weapons from use, including the crossbow, arbalest,¹⁸³ harquebus,¹⁸⁴ musket, and poison gas.¹⁸⁵ Warriors considered battle partly agonistic and partly juristic.¹⁸⁶ Nations viewed war as "just" if "waged by a legitimate authority, for a cause in and of itself . . . good."¹⁸⁷ By the seventeenth century, the impact of war on civilians had become more widespread. Some jurists argued that "the economic activities of civilians, in so far as they made possible the belligerent acts of governments, were a perfectly legitimate target for military activity."¹⁸⁸ Although Dutch statesman Hugo Grotius forcefully argued for constraints on the conduct of war,¹⁸⁹ his pleas were largely ignored. The eighteenth century proved no different, as the scope of war continued to expand.¹⁹⁰ As the potential for destruction increased with the approach of the twentieth century, the concept of a "just war" re-emerged. Governments attempted to accommodate the necessities of warfare to the ethical imperatives of the state. Nations drew up new conventions in an attempt to limit or "out-law" war, and to create a *jus contra bellum*.¹⁹¹ But the advent of

183. An arbalest is "a powerful medieval crossbow with a steel bow, bent by a special attachment and shooting arrows, balls, or stones." WORLD BOOK DICTIONARY 108 (C. Barnhart ed. 1970).

184. A harquebus is "an old form of portable gun, provided at first with a matchlock, afterwards with a wheel lock, used before muskets were invented." *Id.* at 958.

185. H. MAINE, INTERNATIONAL LAW 138-40 (2d ed. 1894).

186. M. HOWARD, RESTRAINTS ON WAR 5 (1979); see Paust, *My Lai and Vietnam: Norms, Myths and Leader Responsibility*, 57 MIL. L. REV. 99, 109 (1972).

187. M. HOWARD, *supra* note 186, at 8.

188. *Id.* at 9.

189. See *id.* at 4-5; 1 THE LAW OF WAR 16-122 (L. Friedman ed. 1972).

190. Danto, *On Moral Codes and Modern War*, 45 SOC. RESEARCH 176, 178 (1978).

191. Examples of laws against war include: Convention for the Amelioration of the Conditions of the Wounded and Sick of Armies in the Field, July 27, 1929, 47 Stat. 2074, T.S. No. 847, 118 L.N.T.S. 303; Convention Relative to the Treatment of Prisoners of War, July 27, 1929, 47 Stat. 2021, T.S. No. 846, 118 L.N.T.S. 343; Kellogg-Briand Pact, Aug. 27, 1928, 46 Stat. 2343, T.S. No. 796, 94 L.N.T.S. 57; Convention for the Adaptation to Maritime Warfare of the Principles of the Geneva Convention, Oct. 18, 1907, 36 Stat. 2371, T.S. No. 543; Convention Concerning Bombardment by Naval Forces in Time of War, Oct. 18, 1907, 36 Stat. 2351, T.S. No. 542; Convention Respecting the Rights and Duties of Neutral Powers and Persons in Case of War on Land, Oct. 18, 1907, 36 Stat. 2310, T.S. No. 540; Convention Respecting the Laws and Customs of War on Land, Oct. 18, 1907, 36 Stat. 2277, T.S. No. 539; Convention Relative to the Opening of Hostilities, Oct. 18, 1907, 36 Stat. 2259, T.S. No. 538; Convention with Respect to the Laws and Customs of War on Land, July 29, 1899, 32 Stat. 1803, T.S. No. 403; Declaration of Brussels, Mar. 19, 1874, United States-Belgium, 18

nuclear weapons and neutron bombs render meaningless most of these efforts.¹⁹²

Today, governments have adopted some restrictions on warfare.¹⁹³ These agreements establish either general principles governing unspecified categories of weapons or restraints on the use of specific weapons.¹⁹⁴ These limitations are supported by the realization that a conflict so destructive as to leave no spoils for the victor is senseless and amoral.

The lesson here, although facially obvious, is that war is not a game with clearly demarcated lines and specific rules. In a game there are restrictions imposed on the participants to give each side an even chance of winning. But war is neither a game nor fair, because in war "[e]ach side is rather expected to do anything which biases the outcome in its favor. . . . [War] is a license for violence, and anything [short of a war crime] that contributes to victory is legitimate."¹⁹⁵

Absent a bilateral limitation on the use of force, such as internationally ratified prohibitions on war crimes,¹⁹⁶ a country's unilateral restriction on its use of force "biases the outcome" in its opponent's favor.¹⁹⁷ This is not to suggest that every unilateral restriction on the manner of fighting is inappropriate. If the burden of deploying a weapon outweighs the attendant benefits, then withdrawal of the weapon system is justified. Moreover, to the extent that a weapon is morally unjustifiable (e.g., a weapon that threatens the extermination of civilian life), "our Nation has a duty to mankind to help obtain [the weapon's] effective prohibition."¹⁹⁸

Stat. 804, T.S. No. 27; and Convention for the Amelioration of the Condition of the Wounded on the Field of Battle (Red Cross Convention), Aug. 22, 1864, 22 Stat. 940, T.S. No. 377.

192. Nuclear weapon systems have become distinct from previous weapon systems in that each nation's warheads, if used, are as dangerous to that nation as to the enemy.

193. *E.g.*, Strategic Arms Limitation Treaty, May 26, 1972, United States-U.S.S.R., 23 U.S.T. 3642, T.I.A.S. No. 7504 (SALT I).

194. THE NEW HUMANITARIAN LAW OF ARMED CONFLICT 161 (A. Cassese ed. 1979). General prohibitions include ambiguous rules calling either for restrictions on arms or for sparing civilian populations as much as possible "from the horrors of war." *Id.* at 161, 163. Other rules specifically ban the use of particular weapons (e.g., projectiles of a specific weight or poisonous gases). *Id.* at 168-70.

195. Danto, *supra* note 190, at 184.

196. Bilateral limitations restrain the use of the same force on both sides, thereby giving neither participant an advantage.

197. Danto, *supra* note 190, at 184. This assumes that the enemy will not impose the same restrictions.

198. Moore, *Ratification of the Geneva Protocol on Gas and Bacteriological Warfare*:

Every nation establishes its own criteria for justifying the use of a weapon in war. Those who support the use of products liability law to govern the conduct of government contractors suggest that normative moral and legal values should be one criterion: Any weapon whose performance capabilities and consequences cannot be warranted by the contractor itself should not be deployed. Unfortunately, acceptance of this view improvidently restricts the government's management of a military exercise and places the fighting forces at a disadvantage.

IV. CONCLUSION

Broadly perceived, *Agent Orange* requires us to address the moral propriety of the government's decision to order the manufacture and use of the herbicide Agent Orange in Vietnam. Some might suggest that decisions of this sort are acceptable if consistent with the "national interest." This rationalization could be justified given the difficulties posed by the dense forests of Vietnam and the military purpose served by their defoliation. But if one subscribes to the view that it is also in the "national interest" for the government to protect its servicemen, then the decision to use Agent Orange is not morally justifiable, especially if there existed less dangerous alternatives.

A Legal and Political Analysis, 58 VA. L. REV. 419, 426 (1972). "War is cruel at best, but the use of an instrument of death, which, once launched, cannot be controlled, and which may decimate noncombatants—women and children—reduces civilization to savages." F. BROWN, *CHEMICAL WARFARE* 41 (1968) (quoting General Peyton March, Chief of Staff of the United States Army, 1932).

One commentator suggests that the United States' use of Agent Orange in Vietnam constitutes a war crime:

The crop destruction program in Vietnam . . . may have sometimes exceeded the limits imposed by customary international law in inadequately differentiating in the field between crops intended for civilian and those intended for military use. . . . [A]t a minimum [international law] prohibits destruction of crops intended solely for consumption by noncombatants and it may prohibit destruction unless the crops are intended solely for combatant use.

Moore, *supra*, at 477 n.201. (footnote omitted). Interpretation of the Geneva Gas Protocol, June 17, 1925, 26 U.S.T. 571, T.I.A.S. No. 8061, 94 L.N.T.S. 65, and United Nations General Assembly Resolution 2603A, 12 U.N. GAOR Supp. (No. 30), at 16, U.N. Doc. A/7630 (1969), determine the guilt of the United States as a matter of international law. Moore, *supra*, at 477-78; O'Brien, *supra* note 171, at 644. The United States has contended that the prohibitions of the Protocol and the Resolution do not include herbicides or "riot-control agents." Moore, *supra*, at 445-47.

If the United States did commit a war crime in spraying Agent Orange in Vietnam, then servicemen who participated in the project may also be guilty of war crimes unless the order to defoliate is judged not to be clearly illegal on its face. Daniel, *The Defense of Superior Orders*, 7 U. RICH. L. REV. 477, 485, 496-97 (1973).

The *Agent Orange* court is not burdened with having to resolve these moral questions. Rather, the focus of its inquiry is on the contractor's performance of the government contract. To determine the contractor's legal responsibility, the court must consider the nature of the contract specifications and the level of knowledge of the contractor and the government. As a general proposition, the government contract defense correctly recognizes that the contractor will not be held accountable for the consequences of properly performing a contract, providing that the contractor either did not know, or shared with the government the knowledge, that the procured product was dangerous. The rule is based on principles of warranty law;¹⁹⁹ its theoretical underpinnings are grounded in basic notions of sovereign immunity.

The government contract rule is justified because the government's discretionary authority to contract should remain unencumbered, especially in times of war. A decision to the contrary would be repugnant to the doctrine of sovereign immunity, which recognizes that the government should be free to exercise a discretionary function, such as a procurement decision, without the threat of being held accountable under products liability. This immunity "extends" to a government contractor because he is merely carrying out the will of the sovereign.

The potential liability of the manufacturers of Agent Orange for injuries sustained by servicemen and civilians will not be resolved until numerous facts are clarified. Among the most important questions still unanswered is whether the chemical companies and the government knew, or should have known, about the dangers of Agent Orange. If the chemical companies prevail on these and other factual inquiries, then they should be absolved from liability under the government contract defense. In that event, the plaintiffs' inability to obtain compensation for their injuries will be due to Congress's inexplicable reluctance to enact a special bill to help the victims of Agent Orange.²⁰⁰ Alternatively, the district

199. In delineating and explaining the elements of the government contract defense, the district court in *Agent Orange II* failed to cite a single contract or warranty law case.

200. For its part, the Supreme Court has invited Congress to correct this injustice. See *Feres v. United States*, 340 U.S. 135, 138 (1950). Without the aid of special legislation, the injured veterans have been forced to rely on existing compensation benefits, *supra* note 103, and the aid of the Veterans Administration. In 1978 the VA started examining more than 89,000 Vietnam veterans who feared adverse health effects from exposure to Agent Orange. Unfortunately, the VA program is plagued with problems. The General Accounting Office has charged the VA with failing to conduct thorough medical examinations of veterans exposed to herbicides. The report also accused the VA of using inconsistent testing procedures

court should find the manufacturers liable if they fail to prove each of the elements of the government contract defense.

Until the factual disputes in *Agent Orange* are settled, the liability of the chemical companies will remain unclear. What is unmistakably clear is that the infirmities of the servicemen and civilians who were exposed to Agent Orange remain a poignant epilogue to a tragic war.

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and failing to properly inform the veterans of the dangers of the herbicide either before or after completion of the examinations. Miami Herald, Oct. 26, 1982, at A6, col. 1.